

**UNIVERSITY OF CAPE TOWN**

**FACULTY OF LAW**

**RECONCILING CONTEMPORARY TRENDS IN INTERNATIONAL TRADE  
LAW AND ENVIRONMENTAL MANAGEMENT: A CASE STUDY OF  
REGULATING HAZARDOUS WASTE TRADE IN SELECT AFRICAN  
COUNTRIES**

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## **STATUTES/CONVENTIONS**

### **(a) International Conventions**

Agreement Establishing the Multilateral Trade Organization (December 15<sup>th</sup>, 1993), 33 ILM 13 (1994)

Agreement for the Reduction of Dolphin Mortality in the Eastern Pacific Ocean, June 1992  
33 ILM 946 (1994)

Agreement on Cooperation for the Protection and Improvement of the Environment in the Border Area, Agreement of Cooperation Regarding the Transboundary Shipments of Hazardous Wastes and Hazardous Substances (12 November 1986), US-Mexico, Annex III, 26 (ILM) 25

Agreement Regarding the Draft Convention for the Regulation of Fishing in the Adriatic (1921)

Basel Convention on Transboundary Movement of Hazardous Waste (1989), 28 ILM 652 (1989), Final Act; 28 ILM 649 (1989), Content Summary (Final Act and Attached Resolutions are reproduced from UNEP Document IG.80/L.12, March 22, 1989. The Convention is reproduced from UNEP Document IG.80/3, March 22, 1989)

Convention between Great Britain and France, to Regulate the Commercial and Maritime Relations between the Two Countries (1882)

Convention between Great Britain and the United States for the Protection of Migratory Birds (1916)

Convention between the Congo Free State, France, Germany, Great Britain, Italy, Portugal and Spain for the Preservation of Wild Animals, Birds and Fish in Africa (1900)

Convention for the Preservation and Protection of Fur Seals (1911)

Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (1940)

Convention Relative to the Preservation of Fauna and Flora in their Natural State (1933)

General Agreement on Tariffs and Trade-Multilateral Trade Negotiations (The Uruguay Round): Final Act Embodying the Results of the Uruguay Round of Trade Negotiations (December 15<sup>th</sup>, 1993), 33 ILM 1 (1994)

International Convention Respecting the Prohibition of the Use of White (Yellow) Phosphorous in the Manufacture of Matches (1906)

London Dumping Convention (1972), 11 ILM 1291 (1972)



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<b>AD</b>	Appellate Division
<b>AER</b>	American Economic Review
<b>Affd LR (HL)</b>	Affirmed, Law Reports, English And Irish Appeals, 1866-75
<b>AJIL</b>	American Journal of International Law

<b>AMCEN</b>	African Ministerial Conference for the Environment
<b>APD/DEAT</b>	Air Pollution Department, Department of Environmental Affairs and Tourism
<b>AR</b>	Africa Report
<b>ASIL</b>	American Society of International Law
<b>BBC</b>	British Broadcasting Corporation
<b>BCRC</b>	Basel Convention Regional Centre
<b>BISD</b>	Basic Instruments and Supplementary Documents
<b>BNA</b>	Bureau of National Affairs
<b>Calif. W. Int'l L.J</b>	California Western International Law Journal
<b>CCH</b>	Commerce Clearing House
<b>CTS</b>	Consolidated Treaty Series
<b>CMLR</b>	Common Market Law Reports
<b>CIEL</b>	Centre for International Environmental Law
<b>CILSA</b>	Comparative and International Law Journal of Southern Africa
<b>CMR</b>	Common Market Report
<b>CSIR</b>	Council for Scientific and Industrial Research
<b>DANCED</b>	Danish Co-operation for Environment and Development
<b>DANIDA</b>	Danish International Development Agency
<b>DEAT</b>	Department of Environmental Affairs and Tourism
<b>DTI</b>	Department of Tourism and Industry
<b>DWAF</b>	Department of Water Affairs and Forestry

ECR	European Court Reports
ECJ	European Court of Justice
Ed	Edition
EE	Ecological Economics
EF	Environmental Forum
EJNF	Environmental Justice Network Forum
ELI	Environmental Law Institute
EPA	Environmental Protection Agency
F. Supp	Federal Supplement (USA) 1932-
GAEC	Ghana Atomic Energy Commission
GATT Supp	General Agreement on Tariffs and Trade Supplement
GEM	Global Environmental Monitoring
Geo	Acts of the Parliament of George
GMT	Greenwich Mean Time
HTS	Harmonized Tariff Schedule of the United States
IELR	International Environmental Law Review
ILJ	International Law Journal
IA	International Affairs
ICJ	International Court of Justice
ICLQ	International and Comparative Law Quarterly
ICLR	International and Comparative Law Review
ILM	International Legal Materials
ILR	International Law Review



IUCN	World Conservation Union
JEH	Journal of Economic History
JEL	Journal of Environmental Law
JELP	Journal of Environmental Law and Practice
JER	Journal of Environmental Regulation
JGLS	Journal of Global Legal Studies
JIL	Journal of International Law
JTL	Journal of Transnational Law
JWT	Journal of World Trade
JWTL	Journal of World Trade Law
LJ	Law Journal
LNTS	League of Nations Treaty Series
LR (HL)	Law Reports English and Irish Appeals (1866-75)
LR Ex	Law Reports, Exchequer
MEST	Ministry of Environment, Science and Technology
MTN	Multilateral Trade Negotiations
OJ	Official Journal
OJEC	Official Journal of the European Communities
P2d	Pacific Reporter, Second Series
PCIJ	Permanent Court of International Justice
PNDCL	Provisional National Defence Council Law
RECIEL	Review of European Community and International Environmental Law

<b>RIAA</b>	Reports of International Arbitral Awards (UN) 1948-
<b>S Ct</b>	Supreme Court
<b>SABC</b>	South African Broadcasting Corporation
<b>SACU</b>	Southern African Customs Union
<b>SAJELP</b>	South African Journal of Environmental Law and Policy
<b>SALR</b>	South African Law Reports
<b>SAR</b>	Southern Africa Report
<b>SAYIL</b>	South African Yearbook of International Law
<b>SDNY</b>	Southern District of New York
<b>SLEL</b>	School of Law of Lewis & Clark College, Environmental Law
<b>SSJ</b>	Social Science Journal
<b>Stat</b>	Statutes at Large (United States Statutes at Large)
<b>TIAS</b>	Treaties and other International Acts Series
<b>TWQ</b>	Third World Quarterly
<b>UCLA</b>	University of California at Los Angeles
<b>UCT/ChemEng</b>	Chemical Engineering Department, University of Cape Town
<b>UNGA</b>	United Nations General Assembly
<b>UPJBL</b>	University of Pennsylvania Journal of International Business Law
<b>USC</b>	United States Code
<b>WESWC</b>	Wildlife Environmental Society of the Western Cape
<b>WT/DS</b>	World Trade Dispute Settlement

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## ABSTRACT

The relationship between international trade and environmental management control has in recent times assumed an increasingly significant role in multilateral economic relations due to a number of emerging trends. Firstly, the underlying philosophy behind international trade advocates the principle of free trade because it is advantageous to the enhancement of national, regional and global welfare. Through the implementation of liberalised international trade flows in goods and services, a great deal of positive measures accrue which are geared towards the advancement of national, regional and international economic/developmental objectives. These positive benefits include the harmonisation of global trade, the development of new markets, increased specialisation, job creation, more competition and the enhancement of global efficiency. This principle is advanced by the General Agreement on Tariffs and Trade/World Trade Organization.

Secondly and on the other hand, since the 1960s until the present day, rapid industrialisation amongst the world's nations has *inter-alia*, resulted in an increase in the generation of massive volumes of hazardous waste, as by-products of nations' increased industrial activities, particularly in the first world. The likelihood of resultant deterioration in terrestrial life must also not be lost sight of. This requires increased monitoring and control of the potential hazards resulting from the disposal or re-use of such waste. Thirdly, compounded with this phenomenon is the lack of technological sophistication which many countries experience as far as the disposal of hazardous waste is concerned. Great is the probability of such trends resulting in increased instances of cancer, psychological, respiratory and reproductive deficiencies, as well as other health-related problems in human and animal life alike. Fourthly, for developed countries such as the United States of America and the United Kingdom, the waste crisis is much more acute than in developing countries, for instance, South Africa, Ghana and Côte d'Ivoire, the three case study countries of this thesis. To some extent however, in the third world, hazardous waste generation is on the increase, given its comparable level of industrialisation.

Over the past few years, having to dispose of wastes in the developed world resulted in a series of environmental catastrophies such as the Swiss Sandoz Spill into the Rhine, the

United States' Love Canal and Italian Seveso disasters. In tragedies such as Sandoz and Seveso, the hazardous waste effects were even transboundary, that is, also extended to neighbouring countries. These incidents resulted in the tightening of environmental laws in the industrialised world and the costliness of having to dispose of these forms of toxic waste there. Developed countries paid money to many developing countries to accept such waste for final disposal. This owed to the financial problems, lax legal regimes, inadequate penalties and ineffective co-ordination amongst offices working on the importation and exportation of toxic waste, in developing countries. Toxic waste then became an item of trade in the global economy. Other forms of waste, as will be seen in this thesis, are not just for final disposal, but could be recycled for further use. With the lack of adequate disposal facilities and the requisite technical expertise to treat hazardous waste in developing countries, the imports of such products became burdensome.

This doctoral dissertation therefore closely examines the link between trade and environmental issues, and how this affects the three case study countries in their regulation of toxic waste trade. Out of these discussions, lessons are extracted for accomplishing the basic aim of this thesis, that is, proposing a model treaty for the African regional and sub-regional mechanisms, and a model law at municipal level for the three case study countries to effectively regulate hazardous waste trade. A distinct feature of the model treaty and law of this thesis is that both of them reconcile trade and environmental objectives.



## **CHAPTER 1: INTRODUCTION**

*"... As we look to expand world trade, we must also ensure that this is not done at any cost. I believe protecting the world's environment is perhaps the major challenge as we face and head towards the next century. Governments need to consider the environmental impact of everything they do, including in the trade sphere. Trade rules should not be used to impose unfair standards on developing countries, nor to discriminate against their exports. I believe that by building new partnerships increased prosperity and trade can go hand-in-hand with environmental protection".<sup>1</sup>*

### **1.1 Introductory Remarks**

This thesis reviews characteristic patterns of hazardous waste trade laws, policies and practices in South Africa, Ghana and Côte d'Ivoire. It also examines the laws governing toxic waste trade within African regional mechanisms. This is done within the context of the trade and environment debate. In this regard, discussions in the first few chapters are centred on the broader and more general free trade and environmental protection debate. The latter part of the dissertation analyses the more specific question of the practices, policies and laws of the three countries which pertain to trade in toxic waste.

Based on this analysis, the thesis makes relevant proposals for regulatory reform at the African regional, sub-regional and municipal levels. In this regard, the thesis accomplishes its main aim. This is the recommendation of a model treaty for African regional mechanisms and also, a model law for the three case study countries which reconcile trade and environmental objectives, as far as toxic waste trade regulation is concerned. Against this background, the basic tenets of this thesis are discussed below.

#### **1.1.1 Definition of Hazardous Waste**

In summary, an attempt will be made to define "hazardous waste" which is admittedly not an easily definable term, given the different uses to which items are put in different situations. Any substance in gaseous, liquid or solid form, or any combination thereof, which is a residual by-product of industrial, domestic, agricultural or other activity, could be disposed of or reprocessed for further use and could negatively impact human and ecological health, because of its acute corrosivity, flammability or other inherent

toxicological/ecotoxicological characteristics, could suffice in this regard.<sup>2</sup> International perspectives are provided on this point.

According to the global Basel and African regional Bamako Conventions, wastes are substances or materials which are disposed off, or are intended to be disposed off, or are required to be disposed off by the provisions of national law.<sup>3</sup> Disposal under the Basel Convention entails operations for final disposal or recycling.<sup>4</sup> In arriving at these definitions, waste is further classified into different groups under Basel. These groups are namely, the special categories of waste to be controlled<sup>5</sup> and the class of waste requiring special consideration.<sup>6</sup> The third group of waste, under Basel, is classified according to its hazardous characteristics. These characteristics include the explosiveness, flammability, toxicity or corrosivity which are exhibited in a particular kind of waste.<sup>7</sup>

Under the Bamako Convention, wastes are any substances listed in Annex I as hazardous waste, those which are not in this list, but hazardous under the laws of the exporting state, those which are listed in Annex II using the same hazardous characteristics as in the case of Basel above, those deemed to be radioactive, and specifically excludes those discharged from the normal operations of a ship, in accordance with another international instrument.<sup>8</sup> This definition is elaborated upon in Chapters 5.2.1 to 5.2.4.

These discussions of waste inevitably tie in with the definition of hazardous waste which both Conventions also consider as such if so defined/considered under the domestic legislation of the country of export, import or transit.<sup>9</sup>

From the above, the inherent dangers of hazardous wastes and the probability of their adverse impacts on human and ecological health are evident. A great deal of caution is thus required when handling and managing these substances.<sup>10</sup>

#### 1.1.2 Terminology

It is also noteworthy that in the general literature and discussions of this thesis, the terms toxic waste, hazardous waste and waste are used interchangeably.<sup>11</sup> Furthermore, toxic waste in many instances comprises chemicals, such as polychlorinated biphenyls,

polybrominated biphenyls, polybrominated terphenyls, chlordane and dieldrin. Some of these chemicals are in turn pesticidal in nature. Hence, discussions on trade in hazardous waste could sometimes extend to the realm of trade in pesticides and fertilizers, *inter-alia*.

### 1.1.3 Hazardous Waste Trade Between Developed and Developing Countries: Overview

Having summarised what exactly amounts to hazardous waste, the events leading to the trading in hazardous waste could be discussed in order to better appreciate the nature of the problem. For some decades now, many industries in developed countries have many-a-time been faced with the predicament of how to dispose of their hazardous waste owing to increases in manufacturing activities. Attempts at disposing of such waste within their territories resulted in tragic environmental disasters. An example is the Love Canal saga which involved toxic waste dumping by the Hooker Chemical Corporation (corporate predecessor of Occidental), as far back as 1942 into the abandoned Love Canal, in the Western New York city of Niagara Falls, USA. From 1977, the effects of such hazardous waste dumping were felt.<sup>12</sup> Similarly, an accidental spill by a production plant in Meda, Italy, in July 1976, resulted in toxic emissions and pollution in the Italian city of Seveso. This has been deemed to be the most serious industrial accident in the whole of Europe.<sup>13</sup> In November 1986, a fire outbreak at a facility in the Swiss Sandoz Company in Basel, Switzerland, resulted in the discharge of large quantities of toxic chemicals into the Rhine river, with unprecedented degrees of damage caused to the resources in the river's ecosystem, groundwater resources and the fishing industry. These consequences of the pollution were felt in France, Germany and the Netherlands.<sup>14</sup>

With such occurring incidents, companies in industrialised countries were made to pay higher costs when waste had to be disposed of in their territories. Environmental laws also became more stringent in developed countries than in developing ones. The establishment of the resultant US Comprehensive Environmental Response, Compensation, and Liability (Superfund) Act<sup>15</sup> in 1986 from the Love Canal incident is a case in point.<sup>16</sup> The Superfund Act also consisted of a programme for cleaning up all contaminated hazardous waste sites. Similarly, on 5<sup>th</sup> August 1982, the European Economic Community adopted its Directive 82/501/EEC, OJEC, L230, in reaction to the Seveso tragedy.<sup>17</sup> This Directive, commonly referred to as the Seveso Directive, covered the risk of major accident hazards involving

specific activities of industry. Then again, the Sandoz spill resulted in the Rhine Agreements.<sup>18</sup> Compounded with the tightening of these laws was the fact that public enlightenment became increasingly more acute in developed countries than in developing ones, with a general reluctance to have toxic waste disposed of at home. This was manifested in the “NIMBY” that is, “Not In My Back Yard” syndrome.<sup>19</sup>

Owing to these, financial constraints and corruption in developing countries *inter-alia*, South Africa and other developing countries have at one time or the other, also experienced the importation of highly toxic substances into their respective territories from developed countries who in the circumstances, had to turn to the third world to sell their wastes to, during the course of international trade. Trading in toxic waste then begun and resulted in all sorts of negative environmental effects within the third world. Dumping of toxic waste into third world countries in turn made the governments of these nations raise many concerns in the international sphere.

Thus, within the framework of the establishment of Multilateral Environmental Agreements (MEAs)<sup>20</sup> which regulate trading activities as they affect other aspects of human, environmental, marine, plant, animal and atmospheric life, international legislation seeking to protect the environment has now been sometimes extended to cover trade in hazardous waste. This is illustrated through the Basel Convention on the Transboundary Movement of Hazardous Waste <sup>21</sup> (adopted on 22<sup>nd</sup> March, 1989, in Basel, Switzerland, and entered into force in 1992, upon receiving the requisite number of ratifications) for instance, which primarily aims at the protection of human health and the environment against the adverse effects which may result from the generation, management, trade and transboundary movement of hazardous waste. It does so by departing from a regulation of such trade between first and third world countries as envisaged in the original Convention in 1989, to seeking a ban in such forms of trade altogether, as anticipated in its Total Ban Amendment III/I, adopted at the Third Conference of Parties (COPs) <sup>22</sup> in September 1995.<sup>23</sup>

In this sense, the Basel Convention could be seen to draw closer to the more “pro-African” Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa<sup>24</sup>

(adopted on 30<sup>th</sup> January 1991 in Bamako, Mali and entered into force in 1998, up receiving the required number of ratifications), which bans toxic waste trade between the countries of this continent and those of the first world altogether. It must be added that in doing this, Bamako also promotes intra-African trade in toxic waste. It is noteworthy though that as at July 2004, there were 49 ratifications out of the 62 which are required for the Basel Ban to be effective.<sup>25</sup> Hence, Basel could be perceived to still regulate and not ban hazardous waste trade *in toto*.

#### 1.1.4 Three Case Study Countries

South Africa, Ghana and Côte d'Ivoire have each ratified the Agreement establishing the WTO. All three countries have acceded to the Basel Convention which seeks to regulate toxic waste trade. None of these three countries have ratified the Third Ban Amendment of Basel nor acceded to it. As far as Bamako is concerned, it has been ratified by Ghana and Côte d'Ivoire, but not South Africa, which has also not acceded to it. It is imperative that certain respective municipal laws of these three case study countries be specifically promulgated so as to reflect the anticipated objectives of the respective adopted conventions, as they operate at the national and regional levels. This could give a full and practical effect to the envisaged ideals in the WTO Agreements as well as the Basel and Bamako Conventions.<sup>26</sup>

Furthermore, the reason for the choice of these three countries as specific case studies is as follows. In the case of South Africa, after decades of isolation during the Apartheid years, the desire for a deeper integration into the global system and also, the African regional system needs a trade law which adopts a careful approach to avoiding protectionism while simultaneously prohibiting the importation of certain substances for genuine environmental concerns. Despite the fact that it has ratified the Basel Convention, there is no specific national law in this country which regulates toxic waste trade. In the face of Africa's more profound commitment to regional integration, manifested in regional mechanisms such as the newly created New Partnership for African Development (NEPAD)<sup>27</sup> and African Union (AU),<sup>28</sup> it could be better for this country to also accede to Bamako and thereby enter into a stronger relationship with other African countries as far as carrying out intra-African trade in toxic waste is concerned.

Similar to South Africa, Ghana is also not sufficiently equipped with a specific legal mechanism on toxic waste trade. In South Africa though, there are more offices, universities and other role players which tackle these issues. Ghana has acceded to the Basel Convention and is in the process of ratifying the Bamako Convention, as mentioned earlier. The findings of the Research Project of this thesis, confirm this claim in Annexes 1 to 3. This is also reflected in Chapter 5 of this thesis.

Regarding Côte d'Ivoire, as far back as 7<sup>th</sup> July 1988, it enacted its law 66-861 which bans any form of trading in toxic waste within the whole territorial jurisdiction of this country.<sup>29</sup> This even came prior to its ratification of Bamako in June 1994. The ratification to Basel in subsequent years could suggest that the government may have intended entering into special trade agreements on a case-by-case basis with first world country governments for reprocessing and refining, before granting its permission for the importation of toxic substances into this country. However, today, when Basel, with its Ban, has objectives which are similar to that of Bamako, this country's municipal toxic waste law may become easier to implement. It must be however be pinpointed that given the fact that this municipal law was enacted prior to this country's ratification to Basel and Bamako, it is perceived as a framework for legislation as far as toxic waste trade is concerned, and not that specific law to be enacted in conformity with the requirements of these Conventions. On the other hand, the existence of this law at national level, together with the proposed amendments of this thesis as elucidated in Chapter 6, could facilitate the enforcement of the principles of these Conventions at municipal level. However, as indicated above, trading with developed countries may also require the same approach of case-by-case permission, based on meticulously cautious environmental assessments. If these suggestions are taken into consideration, this Ivorian law could ensure the proposal of this thesis for a smooth functioning of this country's importation of used petroleum and engine oil for recycling and re-export.<sup>30</sup> This initiative could actually enhance trade in certain categories of toxic waste between Côte d'Ivoire and the two other case study countries, as well as other African countries. This would be most timely as most of the hazardous waste being currently sent for treatment, refinery and export into and from Côte d'Ivoire originates only from neighbouring West African and francophone countries for that matter.<sup>31</sup>

In the light of the above, the present toxic waste trade phenomenon would then change to enhance free, environmentally friendly intra-African trade in hazardous waste, given the advent of a new re-orientation towards African regional and economic integration which is being manifested in new mechanisms such as the NEPAD and AU. Through this, African countries could also get a stronger foothold to collaboratively combat illegal shipments into each other's territories. Within the spirit of NEPAD, these three case study countries and others within the continent could then ensure that their municipal laws' definition of toxic waste correspond to each other's, as this would facilitate what is deemed to be highly toxic/less toxic, *inter-alia*, and can be traded in within each other's territory. This thesis tackles these and other issues, while proposing a relevant model treaty and law in this regard.

#### 1.1.5 African Regional Mechanisms

The environmentally-related trade regimes of the North American Free Trade Agreement (NAFTA)<sup>32</sup> and Common Market for East and Southern Africa (COMESA)<sup>33</sup> are also relevant for African regional mechanisms such as the AU, NEPAD, Economic Community of West African States (ECOWAS),<sup>34</sup> South African Development Community (SADC)<sup>35</sup> and which do not have any laws on trade/environmental matters, or any explicit laws regulating toxic waste trade. How do the dispute settlement mechanisms of these regional instruments impose liability on offenders of these laws, in addition to implementing measures of punitive enforcement, which would be spelt out in the municipal laws of these three countries? These recommended laws could be established as Annexes to the existing laws, already in place, in order to give a strong legal backing to these three countries which cannot operate in isolation when enforcing their respective rules on toxic waste trade bans. In fact, through the establishment of appropriate laws at municipal level, similar laws within the regional mechanisms can also be enacted. This also ensures uniformity in the continent's approach to toxic waste trade regulation.<sup>36</sup>

The approaches of each of these three countries to regulating trading activities in toxic waste and their respective laws thereon will thus be reviewed in this regard. Based on these reviews, a model hazardous waste trade legislative mechanism, which would be distinctively compatible with free trade and environmental ideals, providing the accurate balance between

these two spheres, would be proposed. In this vein, a proposal would also be put forward within the broader context of the trade and environment debate for the incorporation of environmental considerations as an integral feature of the trading regimes of South Africa, Ghana and Côte d'Ivoire, based on lessons from the US Executive Order 13141.<sup>37</sup> This Order incorporates environmental considerations into the trading regimes of the USA.

#### 1.1.6 Salient Points of Thesis

Based on the abovementioned discussions, the main aim of the thesis is the proposal for the model laws on toxic trade at municipal and also, regional levels. In arriving at this point, it is argued that as free trade and environmental protection can be of mutual benefit to each other in the context of hazardous waste trade, it is mandatory that developing countries train more experts in this field and generally, devise meaningful ways of actively participating in the trade/environment debate, instead of perceiving this ongoing debate to be just a means of increasing further burdens for them. In this regard, the timeliness of the activities of the BCRCs in training and providing the requisite technical expertise in toxic waste trade regulation could possibly not be overlooked.<sup>38</sup>

Other arguments of this thesis are premised on the following points: (a) International trade is an important tool for the enhancement of global welfare and must be promoted in national, regional and global policy making of developing countries' jurisdictions; (b) Legislative environmentalism must be encouraged, nationally and internationally by these countries. This must be done in a transparent manner, and where necessary, multilaterally. "...we are travelling together on a common planet and we have no national alternative but to work together, to make an environment in which we and our children can live a full and peaceful life".<sup>39</sup> This need for multilateral co-operation to resolve environmental problems has been endorsed by the Rio Declaration.<sup>40</sup> This Declaration was adopted at the United Nations Conference on Environment and Development (UNCED),<sup>41</sup> convened in 1992 in Rio de Janeiro, Brazil. The Sixth COP of the Basel Convention, for instance, also requires a collaborative approach on the part of the Secretariats of the Basel Convention, the African Ministerial Conference on the Environment and other stakeholders, to implementing NEPAD's Environmental Initiative;<sup>42</sup> (c) Promoting free trade must not result in environmental perils and the former can be used as an effective tool to promote



environmental protection; (d) Environmental concerns can also be used to enhance efficiency in free trade; (e) There should be a more effective international dispute settlement mechanism which will be solely entrusted with the task of resolving trade and environment disputes; and (f) There must be more efficient legislative national mechanisms in South Africa, Ghana and Côte d'Ivoire to prohibit environmentally unfriendly goods, especially, certain toxic substances, from being imported into their territories.

While discussing these matters, the following points will be pertinent and taken into due consideration: The extent to which these issues have affected developing countries who in the past, have had to deal with disposing of toxic waste, a phenomenon which has sometimes occurred as a result of trading activities with the first world. The detrimental implications for developing countries, who are currently seeking to trade in every possible sector, including hazardous waste, and at the same time, must now be mindful of incorporating environmental concerns into trade. How to ensure that prospective municipal laws of the three case study countries promote intra-African trade in toxic waste, as this can generate more income and there is the less likelihood of African countries treating each other on less favourable terms. Whether or not the current international legal trading and environmental regimes provide a sufficient basis for addressing the various issues which arise in this regard. The probability of developing countries remaining passive while developed countries go ahead with the trade and environmental debate. The possibility of the former category of nations' insistence that these issues be deleted from the international agenda, and how realistic this would be, given the emerging trends. Alternatively, viewing the whole issue from the following perspective: If this debate is already on-going and inevitably affects developing countries' interests, how best they fit into the debate, and resolve it, in order to keep abreast with a vital development in international economic relations such as this. The necessary recommendations, if any, which could be made for ensuring that hazardous waste trade is conducted in a transparent manner, without damaging the environment of one another.

#### 1.1.7 Outline

Chapter 2 analyses the liberalist market strategy, while tracing the evolution of this strategy from ancient times to present day. From this analysis, the advantages of economic liberalism,

as contrasted with protectionism are evident. An examination is made of the role of the GATT as the main international trading mechanism for the promotion of global free trade after the Second World War and how it has transmuted into the WTO. The departure of GATT from the single-minded free trade policy to a more dualistic environmentally-sustainable pattern of trade liberalisation under the WTO is also emphasised with relevant legal journals/articles and case law. Out of these discussions, the practical advantages of free trade, as contrasted to protectionism, become easily discernible and are also backed by theoretical insights at this point. The effects of free trade on the environment are assessed in light of how it generates more income for resolving environmental perils but how uncontrolled free trade could also have devastating impacts on the environment.

Chapter 3 reviews the workings of the international and African regimes as they touch on toxic waste trade, with the aim of ascertaining the relationship of these mechanisms on the one hand to each of these three case study countries, on the other. Here, references are made to foundations in relevant customary international law principles. The development of international environmental law regulating toxic waste trade within the NEPAD, SADC and ECOWAS is also relevant. Emerging environmental soft law principles, adopted at the UNCED 1972, in Stockholm, Sweden, and how they are reflected in the Basel and Bamako Conventions as well as the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (adopted in 1998 in Rotterdam, The Netherlands),<sup>43</sup> for instance, are notably fundamental. Some of these principles could also be extracted from some of the case law discussions in Chapter 4. The incorporation of these principles into municipal toxic waste trade laws in the three case study countries are further relevant as far as subsequent discussions in Chapters 5 and 6 are concerned. The problematic environmental law area of illicit trade in hazardous waste is discussed here. Its resultant negative impacts in causing another environmental problem such as pollution is briefly mentioned. Particular emphasis is placed on hazardous waste trade, as this is the main focus of this thesis. The other environmental problems are briefly mentioned to demonstrate effect of illegal trading activity in hazardous waste on other environmental problems. Hence, it is important to implement effective international, regional and national legislative mechanisms to deal with illegal trade in hazardous waste.

Discussions in Chapter 3 also include the identification of existing loopholes and deficiencies in the existing legal systems, both international and regional, as well as how they can be rectified for a better and more effective way of monitoring these trends. So are the effects of these international environmental regimes on global free trade. These include better quality products which can yield increased market accessibility, but also, disguised protectionism and extraterritoriality, especially, against developing countries. This ties in with the trade and environment debate.

Chapter 4 examines the trade and environment debate, traces the origins of these two important spheres as well as how they have gradually interacted and collided with each other. Tests and lessons to avoid protectionism are also extracted from case law.

Within the broader debate is the more specific and narrow question of hazardous waste trade and the various municipal laws regulating it. This is evaluated in-depth in Chapter 5. Hence, this chapter reviews state practice regarding hazardous waste trade and laws in this regard. Problems such as lack of effective collaboration between relevant governmental offices are identified, so as to propose effective measures through which government could not just enact laws, but also, improve the situation on the ground. Put together, trade regulation of toxic waste trade can then function smoothly. The findings of the structured questionnaire are particularly relevant and serve as important points for inputs in this regard.

Based on the preceding discussions, a series of recommendations for the prospective treaty and law are put forward in Chapter 6. This chapter summarises all the points in previous chapters which should be incorporated into the model municipal laws of these three countries.

Chapter 7 focuses on the conclusions of the discussions in all the previous chapters.

## **1.2 Research Methodology**

The sources of literature, the approach to obtaining information and the timeframe within which this information was obtained, are all discussed here.

### 1.2.1 Sources of Literature

With regard to the research methodology for this thesis, the following sources of material were utilised:

- (a) Literature and bibliographical searches, that is, text books, journals and articles from South African libraries, relevant documents and discussions from South African Departments, the New York University Law Library (USA), Ghanaian and Ivorian Ministries, formed the basis of a deskbound study and background reading. Greenpeace International, United Nations Environment Programme (UNEP),<sup>44</sup> WTO, United Nations (UN),<sup>45</sup> UN Food and Agricultural Organisation (FAO),<sup>46</sup> World Bank, Basel Action Network and the International Institute for Sustainable Development (IISD)<sup>47</sup> subscription for news updates also provided relevant and current information in this regard. This information was gathered from 1998 to 2004.<sup>48</sup>
- (b) Analyses and interpretations of legal materials, both international and national, were made. These materials were also readily available in South African libraries. Where some information was located in French, it was summarised into English, for better clarification. This information was gathered between 2001 and 2003.<sup>49</sup>
- (c) Internet searches have also been relevant to this thesis, as they provide a comprehensive update of information concerning the work which is being undertaken in certain relevant areas.<sup>50</sup>

### 1.2.2 Approach

#### (a) Structured Interviews and Questionnaires:

Between April 2002 and February 2003, interviews were conducted on a structured basis. A copy of the list of people interviewed, actual questionnaire and findings are attached to this thesis, as Annexes 1, 2 and 3 respectively. The aim of these interviews was to gain an insight into the existing hazardous waste trade practices and policies in each of these three countries, and how their municipal legal systems reflect the aims of the WTO, Basel and Bamako Conventions. Based on the information gathered, problems regarding

these practices and policies were identified and solutions put forward for an efficient model law. In addition to a series of discussions during personal visits to relevant offices, telephonic and e-mail discussions were also conducted. Questionnaires were also sent out to these offices for an analysis of the day-to-day existing problems in toxic waste importation and exportation laws. Authorities such as Oppenheim,<sup>51</sup> Crabtree and Miller,<sup>52</sup> Coffey and Atkinson,<sup>53</sup> and Mason,<sup>54</sup> their approaches to qualitative and quantitative research as well as analytical strategies for instance, were consulted and used as a basis for the questionnaire.<sup>55</sup>

In the Republic of South Africa, these interviews were conducted with officials from the Departments of Environmental Affairs and Tourism, Water Affairs and Forestry, Health, Minerals and Energy, Trade and Industry, Agriculture and Health, the CSIR, as well as Non-Governmental Organizations (NGOs) such as Earthlife Africa, Environmental Justice Network Forum, Groundwork, Global Environmental Monitoring, the Wildlife Environmental Society of the Western Cape, World Watch and Third World Network. The Johannesburg-based environmental law firm, Bowman Attorneys, also provided pertinent information when contacted in this respect. The Basel Convention Regional Centre (BCRC),<sup>56</sup> based in Pretoria, provides training for Anglophone African countries, including South Africa and Ghana in toxic waste management. The Centre also provided inputs to these questions.<sup>57</sup>

In Ghana, similar interviews were also conducted with the Ministries of Environment, Science and Technology (MEST), the Ministries of Trade and Industry, Environmental Protection Agency (EPA), the Ghana Standards Board and the Ghana Atomic Energy Commission (GAEC). Less NGOs deal with toxic waste trade, as compared to South Africa and no environmental law firm exists. The country offices of the United Nations Development Programme (UNDP), World Bank and FAO also provided useful inputs on some aspects of toxic waste practices and laws in Ghana.<sup>58</sup> As in the case of Côte d'Ivoire below, other offices such as the Exports Promotion Office as well as the Ministry of Trade and Industry were contacted but provided no response. Furthermore, of the few existent environmental NGOs such as the Friends of the Earth which were contacted, there was no response.

In Côte d'Ivoire, questionnaires were also distributed to officials in the Ministère de l'Environnement (Ministry of Environmental Affairs), Ministère du Commerce (Ministry of Trade), Programme des Nations Unies pour le Développement (UNDP) and La Banque Mondiale (World Bank) for insights into this matter. Efforts were also made to establish contacts with relevant NGOs, institutes and other offices, for their answers and observations to the points of inquiry raised in the questionnaire. However, only the Environmental Affairs Ministry provided answers in this regard. All the other offices either gave no response or referred the candidate to this Ministry. The BCRC based in Dakar, Senegal, provides training in toxic waste issues for Francophone African countries including Côte d'Ivoire. Contrary to the BCRC in Pretoria, this Centre did not provide any input to these questions when contacted. Internet searches however provided useful reports on BCRC Dakar's training sessions for relevant officials and the operation of its projects for treating toxic waste in Côte d'Ivoire. This *inter-alia*, helps this country resolve problems of insufficient expertise in toxic waste trade regulation.<sup>59</sup>

(b) Secretariat of the Basel Convention, Geneva, Switzerland

In October and November 2002, e-mail interviews were conducted with the secretariat of the Basel Convention in Geneva, Switzerland for an update on their work, their successes and challenges. The successes include the establishment of the BCRCs throughout Africa, Eastern Europe and the Caribbean regions, as required by the stipulations of the Basel Convention.<sup>60</sup> The challenges in implementing Basel include how to ensure that countries have enough national capacity to manage toxic wastes in an environmentally sound manner and incorporate cleaner production methods into their activities.<sup>61</sup> Through these discussions, proposals are put forward to arrive at more effective ways of legal enforcement of these matters, as carried out by this convention, from international perspectives. Particular emphasis is put on how these issues tie in with the situation of these three case study countries.

(c) Secretariat of the Rotterdam Convention, Rome, Italy and Geneva, Switzerland

From December 2002 till present day, similar inquiries were made from the Secretariat of the Rotterdam Convention, Rome, Italy and Geneva, Switzerland, in order to gain insights on the update of the workings of this Convention, as well as its successes and

remaining challenges. While this Convention was envisaged to come into full force in 2003, the necessary number of ratifications required for this was indeed obtained in November 2003 and this Convention subsequently entered into force in February 2004.<sup>62</sup>

(d) Secretariat of the Stockholm Convention, Geneva, Switzerland

As in (c) above, similar contacts were made with the Secretariat of the Stockholm Convention. This Secretariat of this Convention received the requisite number of ratifications to enter into force in February 2004. After that, Stockholm became fully operational in May 2004.<sup>63</sup>

(e) African Regional Mechanisms

Further telephonic and e-mail discussions were conducted with the secretariats of the international and African regional regimes tackling the transboundary movement of hazardous waste. For instance, in July 2002, two of such telephonic interviews were conducted with an official from the secretariat of the Bamako Convention at the AU in Addis Ababa, Ethiopia, with the objective of ascertaining the successes and challenges which officials encounter in implementing this convention. It was indicated that success stories of this convention include Nigeria and Senegal's reporting of illegal shipments of toxic waste from Romania to Senegal, to the OAU (as it then was) in April 2000.

With this, the OAU acted promptly and ensured that the shipments were sent back to Romania. Nigeria and Senegal were acting within the framework of a Dumpwatch, as required by Article 5 of this Convention, to report incidents of illegal shipments of toxic waste to the OAU Secretariat. On the other hand, lack of financial resources, the restructuring process within the OAU and its transformation into the AU, have prevented the organisation of meetings to assess the progress and obstacles of this Convention, as well as the consequent publication of reports thereon. This falls foul of Article 16 of this Convention. Hence, recommendations are put forward for a better functioning of this Convention in this respect.

(f) African Regional Efforts

Between July 2002 and March 2004, a series of telephonic and e-mail discussions were also conducted with the various secretariats of the African regional mechanisms, namely, the NEPAD, ECOWAS, the SADC, the Arab League, the EAC, the Indian Ocean Commission (IOC)<sup>64</sup> and the Central African Economic and Monetary Community (ECCAS/CEMAC).<sup>65</sup> The aim of these discussions was to discern whether or not their trading regimes incorporate environmental considerations and whether there are any specific laws which ban toxic waste imports from the first world and regulate intra-African toxic waste trade.

From all indications, these mechanisms do not possess adequate laws to forbid the importation of toxic waste or at least, stipulate when they can be imported into their territories, and what happens when such laws are infringed upon. In the case of ECOWAS, for instance, despite a general willingness being shown on the part of relevant officials to pass such laws, this still needs to be implemented in reality. In the case of SADC, though environmental considerations have not been specifically incorporated into its trading regimes, there are some stipulations of its protocol which deal with toxic waste trade. The way these laws function in reality and their efficacy in ensuring sustainable trade in toxic waste within the SADC region, will be examined, in light of its relevance to South Africa.

The outcome of these discussions with these regional mechanisms will be to establish the fact that most of them, though they may accord some importance to environmental issues, do not have specific trade provisions which incorporate environmental concerns. This, from the perspective of this thesis, poses a grey area which needs to be addressed. This stems from the fact that in this era when environmental concerns are being prioritised in almost every sphere of state and international practice, it is almost totally unacceptable to conceive of a trading regime which does not incorporate environmental concerns. Consequently, one proposal will be to ensure that these mechanisms have such provisions. This could be done by Annexes and Protocols to the already established provisions of these regional instruments, in accordance with respective procedures. This would serve as one contributory source of original thought of this thesis. It would also



serve as an input to Chapter 3.4.4 of this thesis, which deals with the regional legal regimes managing waste movements.

(g) Case Studies for Input as Examples of State Practice

For practical examples of case studies which illustrate these states' approaches to trading in toxic substances, personal discussions were held with some of the toxic waste trading companies in the three case study countries. These discussions were conducted between July 2002 and February 2003. Some of the findings of these discussions could be summarised thus: ~

South Africa's Fry's Metals Company in Johannesburg imports lead scrap from Botswana, Zambia and certain African countries for recycling for use in car batteries. Subsequently, it exports these batteries to Nigeria and SADC countries (as well as their use on the local market). Furthermore, South Africa's Battery Terminal Company in Cape Town is currently collecting used batteries in radios, screwdrivers and cell phones for the possibility of recycling these substances for sale and further use. It is planned that this will eventually be conducted on a regional basis.

More of such discussions were held with the La Société Ivoirienne de Raffinage in Côte d'Ivoire, which imports crude petroleum from Nigeria, for refining, treatment and export to Mauritania, Namibia and many countries in Sub-Saharan Africa.

Ghana's Tema Oil Refinery *inter-alia*, also provided insights on its importation of unrefined petroleum oil from Nigeria. This oil, which comprises hydrocarbons, and other highly toxic material, is processed in Ghana. The residual oil by-product of refining this petroleum is toxic as it contains harmful substances such as sulphur. It is then sold to certain oil marketing companies in the US. These case studies will undoubtedly reveal the sort of waste which is being imported in and out of these countries, and the possibility of promoting such trade within the African context.

In effect, the present and the past will be re-visited and on the basis of that, the future envisaged. For instance, how do current trends facilitate the likelihood of one's

hypothetical case for a regional African centre which would specialise in the exclusive collection of used cell phone batteries towards reprocessing and resale? Ghana and to a lesser extent, Côte d'Ivoire seem to be favourably disposed towards such an idea, but see this as a rather long-term vision. South African attitudes are that these projects can be implemented now, as evidenced in the examples above. What are the seemingly insurmountable obstacles which can be overcome in the appropriate legal setting to ensure the effective materialisation of such a proposal? These case studies would be useful for Chapter 5, which tackles state practice and policy of toxic waste trade.

(h) Research Trip

Between 6<sup>th</sup> November and 18<sup>th</sup> December 2002, the candidate embarked on a long-contemplated research and fact-finding trip to the West African countries of Ghana and Côte d'Ivoire. The purpose of these travels was to facilitate personal dialogue with the relevant West African companies listed in (f) above and also, to make further inquiries, based on the questionnaire discussed in Chapter 1.2.2(a), with the various ministries, NGOs and organisations which regulate toxic imports and exports in and out of these two countries, in trade.

Once again, the rationale for these travels was to broaden the candidate's perspectives on what substances are being commercialised in terms of toxic trade, where there are loopholes in the various relevant legislative instruments and how these can be improved upon within the contextual framework of the preparation of a model hazardous waste legislation for trade. The findings of these discussions were useful as inputs to Chapter 5. Prior to the departure for these two countries, contact was made with the relevant offices through e-mail and telephone contacts. In Ghana, these questionnaires were distributed and answers obtained in due course. A series of in-depth discussions with the various officials also helped in discerning the pitfalls in the current policies which regulate toxic waste issues, as well as matters relating to their importation and exportation.

However, owing to the then ongoing war and chaotic political situation in Côte d'Ivoire, questionnaires had to be sent there as e-mail attachments, and discussions held over the

phone. This is because the war precluded the candidate from being able to go there personally as planned. The e-mail and telephonic discussions were held from December 2002 till September 2003.

(i) Contacts for Toxic Waste Trade Courses

Between July 2002 and February 2003, contact was also established via e-mail and telephone with relevant officials at the WTO Training Institutes at the Universities of Nairobi, Kenya, which trains relevant civil servants from Ghana, South Africa and other Anglophone African countries on the practical aspects of implementing trade liberalisation principles. Similar contacts were made with the WTO Training Institute in Casablanca, Morocco, which trains relevant civil servants from Côte d'Ivoire and other Francophone African countries. These contacts have been established with the view of obtaining an update on the workings of these Institutes.

Such correspondence was necessitated by one recommendation of this thesis which holds that certificate courses and training programmes in trade and environment, especially in an area such as hazardous waste trade, be held for citizens of South Africa, Ghana and Côte d'Ivoire. The appropriateness and possibility of fitting this recommendation into the current WTO curricula in Nairobi and Casablanca are being explored. This proposal could be probably supported by the UNEP, the main UN organization for dealing with environmental issues. As UNEP already happens to be headquartered in Nairobi, Kenya, for this purpose, it could easily establish links with the WTO sister-agency in Casablanca, through its Nairobi Institute.

This recommendation, it is anticipated, would be useful as one of the main points of original thinking, which could resolve the persistent shortcoming of acute staffing shortages to work in this area in the three countries for this case study and developing countries for that matter, thereby complementing the model municipal law. This point would be particularly significant to Chapter 5 under the discussions on insufficient personnel in this field and inadequate public enlightenment, which are some of the predominant factors for these countries' importation of highly toxic substances without due consideration for the environment.

The research methodology discussed in this chapter provided relevant information which was subsequently examined. This analysis was used in the discussions of this thesis, as far as the regulation of hazardous waste trade, at the international and African regional levels, and from the perspectives of the three case study countries are concerned. The research methodology therefore provided substantial input to the observations, recommendations and main aim of this thesis.

**1.3. Key Facts on Imports and Exports of Toxic Waste in South Africa, Ghana and Côte d'Ivoire <sup>66</sup>**

Country	Imports	Exports
South Africa	Chemicals, Pesticides, Petroleum Products, Used Engine Oil Containing Polyaromatic Hydrocarbons, Lead for Recycling in Car Batteries, Used Engine Oil, Batteries and Electrical Appliances Comprising Cadmium, Lithium and Nickel	Petroleum
Ghana	Cyanide, Petroleum, Pesticides and Chemicals, such as PCBs and CFCs, Batteries and Electrical Appliances Comprising Cadmium, Lithium and Nickel	Residual Petroleum
Côte d'Ivoire	Petroleum, Chemicals and Pesticides, Sulphur	Petroleum, Butane, Premium Gasoline, Regular Gasoline, Kerosene, Jet A1, Heavy Vacuum Oil, Gaso-Oil, Diesel Distillate Oil and Fuel Oil

- <sup>1</sup> Tony Blair, Prime-Minister of the United Kingdom, Excerpt from speech delivered at the Second Ministerial Conference of the World Trade Organization, May 1998, Geneva, Switzerland; reproduced in Fijalkowski, A and Cameron, J *Trade and Environment: Bridging the Gap* London: Cameron May (1998), at 188.
- <sup>2</sup> Based on definition from South African DWA, Requirements for Waste Classification (1988), Section 2.4, p-2-4, see Article 1(a), (b) and (c) of proposed model law for three case study countries, Chapter 6. See examples in Chapter 5.4 of this thesis. Waste has been more generally discussed thus: "The odd newspapers blowing down the street may be gathered by boys scouts for recycling or even used by a vagrant to keep warm. ...", see Purdue, M "Defining Waste: *R v Rotherdam Metropolitan Borough Council ex Parte Rankin; Kent County Council v Queensborough Rolling Mill Company*", *JEL*, Volume 2, Number 2 (1990), at 259.
- <sup>3</sup> Articles 2(1) of Basel and 1(1), 1 and 2 of the Bamako. Accordingly, these international and regional as well as relevant municipal legal definitions are also provided and analysed in-depth in Chapter 5.2.
- <sup>4</sup> See Annex IV, Section A for list covered under final disposal and Annex IV Section B for list under recycling.
- <sup>5</sup> See Annex I of Basel Convention.
- <sup>6</sup> Annex II, *Ibid*.
- <sup>7</sup> Annex III, *Ibid*.
- <sup>8</sup> See Article 2 of Bamako Convention.
- <sup>9</sup> See Articles 1(1)(b) of Basel and Article 1 generally; Article 2(1)(b) of Bamako and Article 2 generally, *ibid*. See Chapters 5.2.1 to 5.2.4 for more details of the definition of hazardous waste. On definition of hazardous waste, see for instance, Kummer K, *International Management of Hazardous Wastes: the Basel Convention and Related Issues* New York: Clarendon Press (1995), at 48 to 49.
- <sup>10</sup> For empirical evidence on the effects of toxic waste on any given environment, see Chapter 5.2.5 and Article 1(d), Chapter 6 of this thesis.
- <sup>11</sup> See for example, the similar manner in which these terms are used by Associate Professor NA Ashford, Associate Professor of Technology and Policy, MIT, USA, in Hilz, C *The International Toxic Waste Trade* New York: Van Nostrand Reinhold (1992), xiii to xiv, "Foreword".
- <sup>12</sup> "Occidental to Pay \$129 Million in Love Canal Settlement," *For Immediate Release*, Thursday, December 21, 1995 (Also available at [http://www.usdoj.gov/opa/pr/Pre\\_96/December95/638.txt.html](http://www.usdoj.gov/opa/pr/Pre_96/December95/638.txt.html)).
- <sup>13</sup> Dr. Luigi Pistone, *Clean Technologies for the Reduction/Elimination of POPs*, SIIRTEC NIGI S. p.A., available at <http://www.epa.gov/ncea/diox/htm>; See also, *Mocarelli Seveso: A Teaching History*-Plenary Lecture, Dioxin '99, Venice, Italy.
- <sup>14</sup> Kiss, A and Shelton, D *International Environmental Law* Transnational Publishers, Inc. (1991), at 134, 218-221. For further references on toxic waste disasters in the first world, see for example, Kiss and Shelton on the Chernobyl disaster, at 1-2, 44, 68, 106, 134, 136, 221, 222, 228; Schenkel, W "From Clean Air to Climate Policy in the Netherlands and Switzerland: How Two Small States Deal with a Global Problem", (2000) *Swiss Political Science Review* 6(1):159-184, on the Netherlands' Lekkerkerk Soil Pollution (1980) and Uniser Accidents (1981); Marine pollution in the northern Adriatic Sea owing to careless chemical dumping by European firms, and Pollution of Spain's Montgat Beach on the Mediterranean Sea by heavy metals such as zinc, cadmium and lead, cited in Rebovich, DJ *Dangerous Ground The World of Hazardous Waste Crime* Transaction Publishers New Brunswick (USA) and London (UK) (1992), 127, with other examples within the USA, at 126.
- <sup>15</sup> Hereinafter US Superfund Act.
- <sup>16</sup> *Supra* 12.
- <sup>17</sup> See European Economic Community Directive, "Seveso Directive", 82/501/EEC, O.J.E.C L230 (August 5, 1982); discussed in Kiss and Shelton (1991), *Supra* 14, at 312.
- <sup>18</sup> See Convention for the Protection of the River Rhine Against Pollution By Chlorides (1976 Rhine Chlorides Convention), the Rhine Action Programme (1986) and Protocol to the Rhine Chlorides Convention (1991), discussed in Kiss and Shelton (1991), *Ibid*, at 220-223.
- <sup>19</sup> See for example, the refusal of the authorities of the US state of North Carolina to accept 3168 tonnes of waste garbage from New York, May 1987, Kiss and Shelton (1991), *Ibid*, at 313.
- <sup>20</sup> On examples of MEAs, see for example, Chapters 3.4.1, 3.4.3 and 3.4.4.
- <sup>21</sup> Hereinafter Basel Convention.
- <sup>22</sup> The COP is the supreme body of a Convention. As illustrated in Chapters 3.4.1 to 3.4.4, the COP promotes the enforcement of the Convention through the decisions it takes at its periodic meetings.
- <sup>23</sup> See UNEP Document, UNEP CHW.3/34, 17 October 1995 on Basel COP 3 Amendment under the Basel Convention; This Amendment, *inter-alia*, concerned the unanimous approval of Basel COP2 Decision II/12, March 1994, on the immediate prohibition of transboundary movements of hazardous waste for recycling and final disposal from developed countries to developing countries.

<sup>24</sup> Hereinafter, Bamako Convention.

<sup>25</sup> [http://www.ban.org/Deposit\\_Box.html](http://www.ban.org/Deposit_Box.html); See <http://www.basel.int/whatsnew/news.html>, for other relevant information in this regard.

<sup>26</sup> The Basel Convention requires that such a law regulating toxic waste trade be enacted at national level, to reflect countries' international commitments under Basel, at municipal level. In this regard, see Decision I/12 of Basel's 1st COP, December 1992 and also UNEP Document UNEP/CHW.3/34, 17<sup>th</sup> October 1995 of Basel's 3<sup>rd</sup> COP, September 1995. These Basel documents exhort member states to promulgate a model national legislation. Such a national law must conform to the convention's requirement for capacity building to manage the transboundary movement of hazardous waste. The reasoning for the requirements of such a law at municipal level could be the numerous incidents of illicit global trade in toxic waste, the likelihood of such substances destroying all forms of life and the consequent need for a close monitoring of such substances.

<sup>27</sup> See Chapters 2.3.2(b)(ii) and 3.4.12(b).

<sup>28</sup> The AU has since July 2002, replaced the Organization of African Unity (Hereinafter (OAU) ) as the regional mechanism to ensure political stability and integration in Africa, see Chapter 2.3.2(b)(i).

<sup>29</sup> Law on Toxic and Nuclear Waste (1988), 28 ILM 391 (1989) (Reproduced from the English translation prepared for *International Legal Materials* by Americo Beviglia Zampetti, from the official French text of Law No. 88-651 in the *Journal Officiel de la République de Côte d'Ivoire*, July 7, 1988), 258-259.

<sup>30</sup> See Chapter 5.4.19 of this thesis for further details.

<sup>31</sup> See response to Question 4(a), under Findings to Research Project, (c), Côte d'Ivoire.

<sup>32</sup> See Chapter 4.7 and relevant points in Chapter 3.4.12(a)

<sup>33</sup> See Chapters 2.3.2(b)(v) and 3.4.12(f).

<sup>34</sup> See Chapters 2.3.2(b)(iii) and 3.4.12(e).

<sup>35</sup> See Chapters 2.3.2(b)(iv) and 3.4.12(d).

<sup>36</sup> See for example, the case of Germany's Packaging Ordinance (1991) which *inter-alia*, measures the toxicity of packaging components and waste. This led to the adoption of the European Union (Hereinafter EU) Packaging Directive (1994), which applies to the packaging of all products sold in the European Union, including imports: Schoenbaum, T "International Trade and Environmental Protection", produced in Birnie, PW and Boyle, AE *International Law and the Environment* Oxford University Press Second Edition (2002), at 717-718.

<sup>37</sup> Executive Order Directing Environmental Review of Trade Agreements, Number 13141, (2000); Hereinafter US Order 13141.

<sup>38</sup> See for instance, Decisions I/13 and I/20 of 1st Basel COP, December 1992, on the Establishment of Basel Convention Regional Centres for Training and Technology Transfer; UNEP Decision UNEP/CHW.6/L.1/Add.1 which adopts the core set of elements for the Framework Agreement to be signed between the Basel Secretariat, on behalf of the Conference of Parties on the one hand and the Representative of the Host Countries' Governments on the other; UNEP document UNEP/CHW.6/L.1 which includes requests to the Basel Secretariat to continue training activities and promoting awareness. See also, UNEP Documents UNEP/CHW.6/3, December 1992 and UNEP/CHW.6/4, December 1992, on the Establishment and Functioning of the Basel Regional Convention Centres for Training and Technology Transfer; Chapter 3.4.1 (f), on the Evaluation of the Basel Convention, Chapter 5.3.3, under Acute Staffing Shortages to Work on these Matters and Chapter 6, on Conclusions and Recommendations for a Model Law.

<sup>39</sup> Thant, U, United Nations Under-Secretary-General, Stockholm Conference on Human Environment, 1972; reproduced in Justice AA Desai, *Environmental Jurisprudence*, Vikas Publishing House, PVT Ltd (1998), 55.

<sup>40</sup> See Principles 12 and 14 for instance.

<sup>41</sup> See Chapter 3.4.5.

<sup>42</sup> See UNEP Document UNEP/CHW.6/CRP.13, adopted without amendment by Plenary at the Sixth Basel COP, December 2002, Geneva, Switzerland.

<sup>43</sup> Hereinafter Rotterdam Convention.

<sup>44</sup> See fn. 12 of Chapter 2.

<sup>45</sup> Ibid.

<sup>46</sup> Ibid.

<sup>47</sup> See discussions on IISD and other environmental institutes, Chapter 3.5.1(a).

<sup>48</sup> See Bibliography, Case Index and Internet Searches of this thesis.

<sup>49</sup> See Bibliography and Case Index, Ibid.

<sup>50</sup> See List of Various Internet Searches, Supra 48.

<sup>51</sup> Oppenheim, AN *Questionnaire Design, Interviewing and Attitude Measurement* New Edition, Continuum, London and New York (2001).

<sup>52</sup> Crabtree BF and Miller WL, *Doing Qualitative Research* (Research Methods for Primary Care) Volume 3 SAGE Publications Newbury Park London New Delhi (1992).

<sup>53</sup> Coffey, A and Atkinson, P *Making a Sense of Qualitative Data Complementary Research Strategies* Sage Publications, Inc., Thousand Oaks, London, New Delhi (1996).

<sup>54</sup> Mason, J *Qualitative Researching* London, Thousand Oaks, New Delhi (1996).

<sup>55</sup> These are discussed further under research project for thesis. See Annexes 1, 2 and 3, concerning qualitative research methods as related to the structured interviews and research project of this thesis. Here, information on research design and techniques, as applicable to this research project will be detailed. In this respect, the rationale behind the choice and useful delineation of types of questions and officials, the planned architecture of inquiry, and the adoption of a pragmatic analysis of the empirical data on the responses to questions in the structured questionnaire of thesis, will *inter-alia*, be discussed.

<sup>56</sup> See Table of Acronyms.

<sup>57</sup> See Annex 1 for list of people contacted, Annex 2 for the specific points of inquiry and actual questionnaire, and Annex 3 for the findings and contents of the questionnaire.

<sup>58</sup> Ibid.

<sup>59</sup> See for example, activities of BCRC Dakar, in Chapters 5.3.3 and Analysis in Question 6(d), Annex 3(C).

<sup>60</sup> See requirements of Basel Decision I/12, 1992 and UNEP Document UNEP/CHW.3/34, 1995 of Basel's 3<sup>rd</sup> COP, September 1995, Supra 26.

<sup>61</sup> See for example, Decision I/19 of 1st Basel COP, December 1992, on Technical Guidelines for Environmentally Sound Management of Wastes Subject to the Basel Convention.

<sup>62</sup> <http://www.pic.int/en/search.asp>, "What Is PIC".

<sup>63</sup> <http://www.pops.int>, under "Entry Into Force".

<sup>64</sup> See Chapters 2.3.2(b)(viii) and 3.4.13(b).

<sup>65</sup> See Chapters 2.3.2(b)(vii) and 3.4.12(h).

<sup>66</sup> This information was compiled from responses obtained from questionnaire and research project. See Attached Annexes 1, 2 and 3, See Supra 57 and 58.



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## **CHAPTER 2: THE NEED FOR THE ADVANCEMENT OF INTERNATIONAL TRADE**

*It is the maxim of every prudent master of a family never to attempt to make at home what it will cost...more to make than to buy. The tailor does not attempt to make his own shoes, but buys them from the shoemaker...*

*What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it from them with some part of the product of our own industry, employed in a way in which we have some advantage.<sup>1</sup>*

### **2.1 Introductory Remarks**

In this Chapter, arguments are put forth to support economic liberalisation in world trade, as opposed to protectionism. While adopting this view, issues to be reviewed include the following: the dominant trends in global trade in the pre and post World War Two years, the establishment of the GATT and WTO, the basic principles of free trade, their contributions to sustainable development which is currently a prevalent trend in free trade, and how these link with the regulation of trade in toxic waste within the three case study countries. It is noteworthy though that in spite of the viewpoint that free trade is on the whole a more preferable goal to protectionism, this Chapter does not also overlook the exceptional cases in which protectionism may be more beneficial to free trade.

#### **2.1.1 Pre-World War Two Era**

The years which preceded the Second World War, in stark contradiction to the post-Second World War years, were rife with protectionism. During these years of the Great Depression as well as the First and Second World Wars, global trade was characterised by unnecessarily high imposition of tariffs and regulations by governments on imported goods.<sup>2</sup>

For example, prior to 1776 when free trade proponents such as Adam Smith expounded on the liberalist market philosophy in his *Wealth of Nations*, to a large extent, mercantilism pervaded trans-national trade in Europe. In these times, mercantilist thought to trade policy basically aimed at preserving and increasing national holdings of gold and silver (to which a

great value was attached), within the territorial jurisdiction of a given nation. Against this background, governments:

- (a) Imposed a wide variety of taxes and provisions on foreign-produced goods, with the ultimate aim of curbing the importation of goods from other countries into their own; and
- (b) Subsidised and encouraged exports.<sup>3</sup>

Because of its peculiar emphasis on gold and silver, mercantilism further presupposed global free trade to be unworthy of pursuit. Here, the viewpoint was that a surplus always results in international trade. In this kind of situation, one country would presumably reap the benefits of such trade to the disadvantage of another which then incurs losses. Hence, this kind of import-substitution policy, to a certain extent was supposed to provide major benefits for domestic producer interests in both exporting and import-competing industries.<sup>4</sup>

While discussing protectionism which hampered free trade in those days, the Hawley-Smoot tariff, enacted by the USA in 1930, could be cited as another case in point. This piece of legislation is often perceived to have effectively increased import duties to the highest level in its history. After that, Canada, France, Mexico, Italy, Spain, Australia, the UK, New Zealand and the nations of the British Commonwealth levied retaliatory regulations by also introducing all manner of discriminatory taxes on foreign products within their respective territories.<sup>5</sup>

Such economically constricting trends stagnated growth within many national economies. From this perspective, Hudec states thus:

“The economy of Europe was disorganized, productive facilities were destroyed; channels of trade were broken; heavy debts were incurred. Nationalism and protectionism were stimulated by the revision of boundaries and the creation of new states. ... A vicious restrictionism produced a further deterioration in world trade”.<sup>6</sup>

The “anti-export-oriented” biases which characterised national trade policies prior to 1945 resulted in a state of autarky. Here, trade was perceived to be of no benefit. Owing to this and the global economic graveyard which was created, world leaders sought a fundamental departure for an urgent transformation towards a free and fair market strategy within the international economic order.

In this regard, the efforts of the great powers of the first world in constructing a free global trading mechanism can also not be underscored in the light of the somewhat dominant hold which they have sometimes possessed over the GATT and WTO up until contemporary times. For instance, in 1927 and 1932, conferences were convened by the US, UK, Germany and other world powers, to devise meaningful strategies towards the attainment of a free global market system. However, these conferences failed to translate theoretical ambitions into pragmatic reality, as they resulted in detailing the factors responsible for trade being at a low ebb, rather than putting forward concrete proposals on how to arrive at market liberalism.<sup>7</sup> The purpose of such conferences could therefore be perceived to have been defeated and in this sense, an exercise in futility.

In 1934, the USA introduced its Reciprocal Trade Acts Agreement which began to permit the importation of products into its territory on more favourable terms, by vesting authority in the President to negotiate multilateral tariff concessions. For the next fifty years, this Act became the main instrument for tariff dismantlement in the USA.<sup>8</sup>

Under the US-UK Lend-Lease Agreement (Article VII) between the US and UK, in September and October 1943, a series of informal meetings were held in Washington DC under Article VII, with a view to devising novel approaches to the promotion of global free trade. These meetings led to negotiations for the institutionalisation of the International Trade Organisation<sup>9</sup> in 1944, in Bretton Woods, New Hampshire, USA.<sup>10</sup> Of particular importance of the Bretton Woods meeting is the fact that it resulted in the *Draft ITO Charter*. Hudec states that this Draft Charter had an elaborate dispute settlement procedure, was more extensive than the GATT and was rather ambitious in that it extended beyond world trade disciplines to include rules on economic activity, employment as well as economic development and reconstruction, for example.<sup>11</sup>

Meanwhile, the creation of the United Nations in 1945 also signified a total commitment on the part of world leaders to work collaboratively in many spheres including economic activity, to meet developmental objectives.<sup>12</sup> However, such co-operation, as seen in Chapter 2.1.2 for instance, has been mostly to the advantage of developed countries who have subsidised their goods and protected their local markets from foreign competition as and when they believe that this can generate more benefits to their industries. This has been to the detriment of developing countries, especially in an area such as agricultural trade, which is an important source of income to them. Such situations have sometimes raised the question of whether economic liberalisation may be always desirable, at least, from the perspective of developing countries.

#### 2.1.2 Post-World War Two Era: A Historical Perspective-from Havana to Marrakech

In October 1946, the UN Conference of Economic and Social Council and the UN Conference in Trade and Development<sup>13</sup> were convened by the UN in London, England, UK. It is noteworthy that in this year, the GATT was prepared as a constituent element, that is Part IV of the ITO Charter. Strictly speaking, the GATT was originally designed to be another in a series of reciprocal trade agreements authorised under the 1934 Reciprocal Trade Agreements Act and its periodic extensions.<sup>14</sup>

From January to February 1947, a preparatory conference on the ITO and GATT was convened in Lake Success, New York, USA, followed by a drafting of the ITO Charter and its finalisation during the UN Conference on Trade and Employment, held in Havana, Cuba, from November 1947 to March 1948.<sup>15</sup> Thus, it was in Havana that the charter for the contemplated international trading regime became legalised and completed. Basically, the ITO was to function as a specialised agency of the UN and the international trading mechanism, as the third institution to act in close collaboration with the Bretton Woods institutions, that is, the IMF and the World Bank in monitoring international economic relations.<sup>16</sup> It has also been observed that the intended result of these meetings was a post-war system of economic management premised around a core of three institutions, namely the ITO, IMF and World Bank, in partnership with a fourth, the International Labour

Organization<sup>17</sup> whose inclusion here partly owed to the ITO's commitment to full employment.<sup>18</sup>

However, failure on the part of some national legislatures, notably, the US, to ratify the ITO Charter, meant the inevitable demise of the ITO. Interestingly enough, for the same reason, a similar effort by the international community to establish an Organization for Trading Cooperation<sup>19</sup> failed in 1950.<sup>20</sup> In these circumstances, the GATT, the only surviving portion of the Charter, accidentally became the sole multilateral instrument governing international trade for almost five decades, that is, from 1948 to 1995, albeit on a provisional basis.<sup>21</sup>

Regarding the status of GATT as a regulatory mechanism and not the envisaged organisation for strictly enforcing rules in international trade law, GATT participants have been termed as contracting parties and not members. Furthermore, this status of GATT mainly accounts for the many deficiencies which characterised the GATT. These shortcomings included an inefficient dispute settlement mechanism, the "lukewarm" implementation of domestic rules in accordance with international obligations of economic liberalism as required by the GATT and the ill-defined powers of the contracting parties.<sup>22</sup>

The significance of these was quite clear: the purposes of establishing a liberal trade regime had been fulfilled to a very large extent, but to a lesser degree, had been defeated. This derives from the failure of the ITO but the survival of its component, the GATT. In this kind of situation, nations, especially, the more powerful ones, were implicitly free to resort to their hitherto protectionist ways in one way or the other, without being held accountable to any strict regulatory regime. This would be to the detriment and expense of the less powerful developing countries, who in such circumstances, have been somewhat marginalised throughout the history of international trade. This view is stated in the preceding sub-chapter. Though free trade has advantages, it must then be promoted more strictly according to its stated aims, as the absence of this adversely affects the world's poor, making free trade rather questionable.

Continued trade restrictive policies included the Common Agricultural Policy (1957) and its Variable Import Levy, both of which were imposed by EU importers on foreign goods in

agricultural trade. The CAP regime enabled local EU farmers to be subsidised by the EU, so that they sold their agricultural products at lower prices than imported goods without suffering any losses. The Variable Import Levy permitted taxes on imports and could be varied at any time.<sup>23</sup>

Another example of such trade restrictive policies existed between the US, UK and certain industrialised countries on the one hand and the newly industrialised countries of the South East Asia on the other, in clothing and textiles trade. Here, the former group of countries, in reaction to competition from industries in the latter group, resorted to the imposition of anti-free trade policies such as voluntary quotas which limited imports from Japan, Hong Kong, Pakistan and India.<sup>24</sup>

As a matter of fact, on the insistence of the US and the UK, agriculture and textile produce, two fundamental areas of economic importance, specialisation and comparative advantage for Africa and the rest of the developing world, were removed from GATT rules. This, in turn, contributed to the moulding of the GATT's evolutionary trajectory and its perceived industrial bias, as well as the marginalisation of developing countries in international trade.<sup>25</sup> Faced with such circumstances, these less privileged countries could not derive as much financial resources as they may otherwise have done. Though free trade may be preferable to protectionism, in reality, this has sometimes raised the issue of the desirability of the former, as stated earlier.

In the light of such factors, between 1950 and 1994, remarkable efforts were made by the GATT contracting parties, who organised a series of multilateral negotiations to essentially remove non-tariff barriers and eradicate the persistent protectionism. These negotiations have been technically termed as GATT rounds. The first five rounds which were conducted focused on reducing tariffs and more importantly, Non-Tariff Barriers (NTBs). These were the Geneva Round in Switzerland in 1947; the Annecy Round in France in 1949; the Torquay Round in England in 1950; the Geneva Round from 1954 to 1955, and the Dillon Round in Geneva, from 1960-62.<sup>26</sup> The sixth of these Rounds, the Kennedy Round, which Demaret concedes is the most important of all the rounds, was organised in Geneva, from



1962 to 1967. One outcome and positive attribute of this Round was its resultant reduction in customs duties of the contracting parties by an average of 35%.<sup>27</sup>

The next series of negotiations was the Tokyo Round, convened from 1973 to 1979, in Geneva. It resulted in an average one-third cut in customs duties in the world's nine major industrial markets, thereby bringing the average tariff in industrial products down to 4.7%.<sup>28</sup> This trade negotiating Round is particularly significant for establishing many codes or side agreements, such as those on the liberalisation of certain government procurements, Subsidies and Countervailing duties, Technical Barriers to Trade and Sanitary & Phytosanitary Standards Agreement. These were eventually amended in the Uruguay Round, transformed into multilateral commitments accepted by all WTO members and incorporated into some of the current WTO agreements. The Tokyo Round was however not able to rectify some of the chronic weaknesses of the GATT, specifically the marginal application of the GATT to agricultural products. Furthermore, the agreements from the Round were not multilateral, meaning that this trading regime was really not an equitable one.<sup>29</sup>

Nations deliberated on trade issues pertaining to the removal of non-tariff measures in agricultural and textiles sectors, the extension of the scope of trade to cover areas such as services and intellectual property, and the incorporation of environmental issues, human rights and labour standards into the international trading regime. These discussions took place during the Uruguay Round, convened from September 1986 in Punta del Este, Uruguay, to April 1994 in Marrakech, Morocco.<sup>30</sup>

## **2.2 The Establishment of the World Trade Organization**

### **2.2.1 Overview**

The Uruguay Round further concretised international trade rules. Though it did not aim at the establishment of another organisation, after being concluded at the end of 1993 and having its Final Act (which covers it) and its agreements signed in March 1994, it culminated in the formation of the WTO. While providing the common institutional framework for conducting trade relations in a transparent manner, the WTO basically aims at expanding trade to raise standards of living, ensuring full employment and increasing income. These, it seeks to accomplish through the eradication of unjustifiable trade barriers and discriminatory

treatment. In this vein, one distinct feature of the WTO is the fact that it is the only international organisation which regulates multilateral trade and administers global trading rules between nations in the international economic order. Its other functions include administering WTO trade agreements, handling trade disputes, monitoring national trade policies and providing technical assistance and training for developing countries. The Secretariat of the WTO is headquartered in Geneva, Switzerland.<sup>31</sup> Key points on the structure and status of the WTO, as well as its continuity of GATT principles, are provided below.

### 2.2.2 Structure<sup>32</sup>

The Final Act setting up the WTO Charter is composed of a number of agreements, understandings, ministerial decisions and declarations, which together establish the rules of free trade, discussed in Chapter 2.3. In this regard, this Charter could be categorised into four groups, namely, Annex 1 which consists of Multilateral Agreements, Annex 1A on GATT 1994 (including side agreements, understandings and the Marrakesh Protocol), Annex 1B on the General Agreement on Trade in Services and Annex 1C encompasses Trade Related Intellectual Property Services. Annex 2 deals with the Dispute Settlement Rules, Annex 3 covers the Trade Policy Review Mechanism and Annex 4 deals with Plurilateral Agreements. In the last group, Annex 4A deals with Civil Aircraft, Annex 4B touches on Government Procurement, Annex 4C is on Dairy Products and Annex 4D covers Bovine Meat. Additionally, there are a series of Ministerial Decisions, Declarations, Understandings and Recommendations. Membership to the WTO ensures a “single undertaking approach”, that is, a country by adhering to the WTO Charter, becomes subject to each of the annexed agreements. However, regarding the Plurilateral Agreements, adherence is optional. Therefore, by negotiating and signing these agreements, nations including the three case study countries as shown in Chapter 2.3.3, ratify the WTO Agreements in their national parliaments.

Regarding its structure, the WTO also has many committees, groups and working parties which work on aspects of international trade. Of special interest to this thesis is the Committee on Trade and Environment. The workings of this Committee are analysed in Chapters 3.4.10 and 4.3.9 of this thesis. Some of these tasks include convening meetings to

train member states on issues relating to the trade and environment debate and establishing decisions in this regard. Furthermore, two important WTO bodies are the Ministerial Conference and the General Council. While both of them are composed of representatives of all members, the former body convenes at least, once every two years and the latter meets in between these meetings. The workings of the Committee on Trade and Environment during various WTO Ministerial Conferences, and their relevance to trade and environment is also discussed in Chapter 4.3.9. This analysis is conducted in the light of the applicable lessons which could be drawn from these workings, in formulating a model law to regulate toxic waste trade in the three case study countries.

### 2.2.3 Status

Contrasted with the GATT, the WTO, as established by its Charter, is a complete international organisation with legal personality. Other salient features of the Charter include the fact that it also accords the WTO with a Secretariat, Director-General, budget and explicit authority to develop relations with other international organisations.<sup>33</sup> Being a complete legal mechanism means that it has legislative powers to enact its own laws, executive powers owing to its ability to enforce these laws and judicial authority as it can hold offending countries liable, under its uniformed Dispute Settlement Body. It is also endowed with an efficient Trade Policy Review Mechanism, which oversees member states' adherence to free trade policies in their national laws. These could be said to exemplify the improvements which the WTO makes upon the GATT.

### 2.2.4 Continuance with the GATT

Except as provided, the WTO Charter explicitly states that the WTO and Multilateral Trade Agreements will be guided by the decisions, procedures and customary practices of GATT 1947.<sup>34</sup> This evidently reiterates the WTO's basic continuance of most of GATT philosophies and practices. For this reason, the basic principles of free trade which essentially touch on non-discrimination, as discussed in Chapter 2.3 below, are applicable to both the GATT and the WTO.

## **2.3 Fundamental Principles of Free Trade**

### **2.3.1 Non-Discrimination**

The two-axled principle of non-discrimination in international trade law has often been acknowledged as the main thrust and foundation of the GATT/WTO regime. Essentially comprising the Most Favoured Nation (MFN) and the National Treatment clauses, it seeks to ensure equal treatment amongst like imports from various nations, under MFN, and equal treatment between locally-produced goods and foreign goods, under National Treatment.<sup>35</sup> Further illumination is provided on these two principles below.

#### **2.3.1 (a) General Most Favoured Nation Clause**

The underpinning philosophy behind the MFN principle is that every country observes the principle and all countries will benefit in the long run through the more resultant efficient use of resources. Furthermore, if the principle is observed, there is less likelihood of trade disputes.<sup>36</sup>

Olivier Long (former Director-General of the GATT), describes the MFN principle as the “Cornerstone of the General Agreement, which also requires that : ‘...any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties’”.<sup>37</sup> This MFN definition is mainly emdedded in Article I of the GATT/WTO Agreement. It is noteworthy though that other GATT/WTO stipulations also reinforce the MFN. Examples of these clauses are Articles XIII which require such equal treatment as far as administration of quotas is concerned, Article IX on marks of origin and Article V:2 regarding the transit of goods.<sup>38</sup>

Hence, this rule necessarily requires equality of treatment for the products of all exporting countries with respect to customs duties and charges of any kind. This means that when an importing country levies a duty on an imported good from an exporting nation, or grants a favour on such a good, such a policy must also be applied to goods from other countries. This is for the avoidance of discrimination. With this scenario, no nation or group of nations

assume(s) a *primus inter paris*, that is, “first among equals” kind of personality regarding others in international trade.

Under MFN, it might be appropriate at this point to reflect on whether African countries are entitled to reject imports of toxic waste from the first world while accepting these from their African country trading partners. It seems that under national sovereignty and also, GATT Article XX (b) and (g) exceptions, toxic waste is extremely dangerous and must be handled very cautiously. Compared with the first world, these substances are produced in insignificant quantities in this continent. Moreover, as it is safer to treat this substance closer to its source of generation, under Basel<sup>39</sup> and Bamako,<sup>40</sup> it may be environmentally commendable for African countries to trade in toxic waste with one another, when they deem it to be beneficial, than transport these dangerous substances across many boundaries to the first world and vice versa. In this regard, the objectives of Bamako in promoting inter-African trade in toxic waste while rejecting these from the first world could not be perceived to violate MFN rules. With respect to such a scenario, it could be seen that while adhering to free trade, protectionism may be realistically considered as and when necessary, but with justifiable cause.

#### Case Law Under MFN

##### (i) *US Tariffs/Duties on Imported Steel*<sup>41</sup>

On 5<sup>th</sup> March 2002, the US applied up to 30% tariffs on a wide range of imported steel products from many countries. The reason for this was to safeguard domestic producers and protect US' ailing steel industry from total collapse and thereby, invoke the WTO Safeguards Agreement. Several countries including Switzerland, China, Republic of Korea, Japan, Brazil and also EU countries, were badly affected by these measures. However, these tariffs do not affect a country such as Australia, which has signed special agreements with the USA. Most of those affected requested the WTO to inquire into the discriminatory nature of these tariffs. On 10<sup>th</sup> March 2002, the WTO criticised the USA for its newly established duties on the importation of steel from other countries and ruled that these duties do in fact violate the MFN Agreement.

(ii) WTO-EU Banana Case<sup>42</sup>

In 1997, the WTO ruled that the granting of certain preferential treatments in banana trade, by the EU to only its former colonies within the ACP region, violated the MFN clause, regarding the WTO and other free trading rights of trading partners of the WTO. These treatments, in the opinion of the WTO, did not conform to the FTA agreements required by the GATT/WTO.

(iii) Belgian Family Allowances Case (Allocations Familiales)<sup>43</sup>

In this case, a GATT panel ruled on a Belgian law which levied a charge on foreign goods purchased by public authorities when those goods originated in a country whose system of family allowances did not meet specific requirements. The charge was collected after importation and only on products purchased by public bodies for their own use. The panel concluded that some countries had been exempted from the charge while others such as Denmark and Norway had to pay these taxes. Therefore, there was a violation of the MFN.<sup>44</sup>

2.3.1 (b) National Treatment

This clause, while prohibiting discriminatory treatment between domestically produced and locally imported goods, is needless to claim, a central feature of international trade rules and policy.<sup>45</sup> The prevalence of such discrimination would otherwise mean that the country of importation may be pursuing protectionist measures to subtly assist its firms, with the objective of avoiding competition from foreign firms. So that, this rule essentially requires that as far as like products are concerned, taxes and other internal charges, laws, regulations and requirements affecting the sale, purchase and distribution of products on the domestic market and conditions, be the same for domestic and foreign imported goods. In effect, national treatment promotes equality of treatment between foreign and domestic goods in international economic interdependence, bringing to mind, the European Union's doctrine of mutual trust/mutual recognition. This was established after the *EU Cassis de Dijon Case* which is analysed in Chapter 4.5.3. This doctrine basically requires that any products which are legitimately manufactured in the territory of one state should be accorded equal treatment in the territory of another state. However, this does not apply to customs duties and other border provisions.

To this end, GATT/WTO Article III(4) which prohibits more favourable treatment being accorded to a like product in the local market than an imported one, stipulates that :

“The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations, and requirements affecting internal sale, purchase, transportation, distribution or use”.

Furthermore, paragraphs 2 of Article III requires national treatment as regards internal taxation such as sales, excise or value added taxes. According to paragraph 4 of Article III, national treatment is required regarding regulations affecting the general sale and use of goods. Somewhat similarly, Article III (7) also prohibits the application of internal regulations relating to the mixture, processing, or use of products in specified amounts or proportions so as to allocate any such amount or proportion among external sources of supply.<sup>46</sup>

#### Case Law Under National Treatment

##### (i) *Rulings of WTO Appellate Body on French Ban of Carcinogenic Asbestos*<sup>47</sup>

On 28<sup>th</sup> May 1998, Canada complained to the WTO that France's rejection of carcinogenic asbestos and products containing these substances contradict Articles 2, 3 and 5 of the Sanitary and Phytosanitary Agreements, Article 2 of the Agreement on Technical Barriers to Trade and Articles II, XI and XIII of GATT 1994. Since consultations between the EEC and Canada did not yield a mutually satisfactory solution on this matter, on 8<sup>th</sup> October 1998, Canada further requested that a WTO panel be established to rule on this matter. Accordingly, this Panel was set up on 25<sup>th</sup> November 1998.

In March 2001, the WTO ruled that carcinogenic asbestos is not the same as its substitutes. Carcinogenic asbestos can cause cancer and therefore can be refused on genuine health and environmental grounds. Consequently, a French ban on imports of these substances from Canada did not violate free trade laws and was legitimate. Protectionism could in this sense, be seen to override free trade, for legitimate reasons.

(ii) US Tax on Certain Imported Chemicals for Superfund<sup>48</sup>

In this case, the US' legislation imposed: (i) A tax on certain chemicals sold or imported into the US and (ii) a tax on certain imported substances containing chemicals subject to the first tax. The tax on imported substances is set so that a substance would bear the same tax as if it would have been produced in the US from chemicals subject to the first tax. The taxes serve as financial contributions to the so-called Superfund, which is used to clean up hazardous waste sites in the US and is permissible under Article III.

The GATT Panel ruled that the US justified the tax on certain imported substances as a border tax adjustment corresponding in its effect to the internal tax on certain chemicals from which these substances were derived. The Panel further noted that the EEC considered the tax on certain chemicals not to be eligible for border tax adjustment owing to its designation to tax polluting activities that occurred in the US and to finance environmental programmes benefiting only US producers, consistent with the polluter pays principle. The US should have taxed only products of domestic origin because only their production gave rise to environmental problems in the US.

(iii) Tuna-Dolphin Case I and II<sup>49</sup>

Under national treatment, the *Tuna-Dolphin* Cases could also be cited, though it will be discussed in more detail in Chapter 4, together with others such as the *Shrimp-Turtle* below. Here, the WTO held that US bans on the importation of tuna imports from Mexico were anti-GATT and discriminatory against these imports. This was because the US was not justified in its reasoning behind such rejection, namely that, the tuna was caught with purse seine nets, this amounted to green protectionism and drowned the dolphin population in the Mexican sea. The main essence of this ruling was to ensure that foreign imports are not discriminated against, as this means that local industries are being protected against foreign competition.

(iv) Shrimp-Turtle Case<sup>50</sup>

However, in the *Shrimp-Turtle* Case, the US was held by the WTO Dispute Settlement Body to be justified in rejecting imports of shrimps from Malaysia, Thailand, Indonesia and the Philippines, on the grounds that these products were not caught with Turtle exclusion



devices and drowned the turtles, thus reducing the turtle population in the Pacific Ocean. Though it might be difficult to envisage how one country can impose environmental standards to be adhered to, during production processes, the WTO must also not be read in clinical isolation from public international law and its emerging trends such as sustainable development. Ultimately, national treatment may perhaps be legally departed from, with the aim of greening international trade.<sup>51</sup> By 1998 when the *Shrimp-Turtle* ruling decided by the WTO, this stand had become clear, in stark contrast to the 1991 *Tuna-Dolphin* situation. This also reinforces the rationale for protectionism, in certain instances, as opposed to a blind pursuit of economic liberalism.

#### (v) Other Cases on National Treatment

From these cases, it could be asserted that under national treatment, however, it is sometimes not very easy to discern the sort of guidelines which are used in determining when a policy is genuinely trade-restrictive. This becomes very complex especially in this day of adhering to trade sustainability, even within the WTO. As indicated above, the *Shrimp-Turtle* and *Asbestos* Cases, clearly demonstrate the WTO's increasing commitment towards sustainable development.

However, in the *WTO EU Beef Hormone* Case,<sup>52</sup> the converse held true. Here, the WTO, in 1997, ruled that EU legislation which banned the importation of meat produced with hormones including oestradiol, progesterone, testosterone, zeranol and trenbolone, and an animal growth specific hormone and somatotropin, was an unfair trade law against imported goods. However, these laws were imposed on genuine health and environmental grounds, namely that: (a) Scientific tests had established that these hormones could cause cancer; (b) Products containing these hormones, when consumed had caused all manner of gross hormonal defects in male toddlers and young girls in Europe; (c) The laws applied to both foreign and locally produced goods. Given these genuine environmental and health concerns, the ruling could have been the reverse. Though free trade is the main target of the WTO, the international trading regime has gradually come to lay emphasis on the need for sustainable development as an integral part of this main target. Hence, the proposed reversed ruling in this case could also have been made to reinforce the extent to which protectionism could also enhance the welfare of a nation's populace for lawful reasons.

In the *Gerber Guatemala Case*,<sup>53</sup> the US-based Gerber products Company sought to avoid abiding by an infant health law in Guatemala which forbade the use of baby pictures on labels for baby food for children under two years old. In enacting this law, Guatemala adhered to stipulated guidelines by the UNICEF-WTO Infant Formula Marketing Code, which was developed to help protect the lives of infants through promoting breastfeeding over artificial breast milk substitutes by, among other things, eliminating the packaging that could induce illiterate parents to associate formula with healthy, fat babies. Foreign and local manufacturers of baby food complied with this regulation. It has been observed that with the introduction of this law, there was a significant decrease in the infant mortality rate, with UNICEF commending this country as a model of the code's success in its literature.<sup>54</sup> However, owing to threats by Gerber of GATT action against this third world country, Guatemala's law was changed. It exempted imports of food products from other infant health laws. This raises the question of LDC marginalisation in international trade, even when genuine environmental and health concerns are at stake. Furthermore, it is wondered whether the WTO cannot assist the less powerful in such an instance.<sup>55</sup>

In addition to these fundamental principles, other subsidiary but important non-discriminatory rules include GATT/WTO's general prohibition of quantitative restrictions: "No prohibition or restrictions other than duties, taxes or other charges shall be instituted or maintained".<sup>56</sup>

Furthermore, the legitimate imposition of trade tariffs must be solely geared towards trade regulation. However, this is subject to limitations under GATT rules. Since the inception of GATT, each country, in all GATT rounds, have been required to reduce tariffs, for the free flow of trade. Hence, countries are to make room for concessions and should not impose tariffs which exceed their concession rates.<sup>57</sup> Article XXVII:2 also provides for tariff reductions through multilateral negotiations on a reciprocal and mutually advantageous basis.

### 2.3.2 Exceptions

On the other hand, in certain circumstances, it may be legally permissible to deviate from the abovementioned GATT rules. First and foremost, under the international law principle of

national sovereignty, the GATT accepts that countries are entitled to promulgate certain laws which they deem to be prudent for the well-being of their national interests. Brownlie provides the main constituent principles of the doctrine of sovereignty and equality of states as follows:

- (a) A jurisdiction, *prima facie* exclusive, over a territory and the permanent population living there;
- (b) A duty of non-intervention in the area of exclusive jurisdiction of other states; and
- (c) The dependence of obligations arising from customary law and treaties on the consent of danger.<sup>58</sup>

Sovereignty further denotes the autonomy of states and the need for state consent to make law and build institutions. Sovereignty is used to justify and define the privacy of states, their political independence and territorial integrity; their right and the rights of their peoples to be let alone<sup>59</sup> and to embark on the path which in their discretion, is the most prudent.

On the other hand, this concept is sometimes abused by resorting to actions within one territory, which could have negative effects on a sovereign nation's neighbouring territory. From this viewpoint, Henkin provides that this doctrine has now bred a mythology of state grandeur and aggrandizement that misconceives the concept and clouds what is authentic and worthy in it, a mythology which is often devoid of human values and sometimes, even destructive of these values.<sup>60</sup>

This particular point on sovereignty is discussed in-depth in subsequent chapters, with regard to how sovereign developed countries are, to be able to export toxic substances into developing countries and the extent to which sovereignty entitles each of the three case study countries to enact toxic waste laws which protect its environment, dictating its standards and without any interference from the first world. The extent to which nations should be encouraged to exercise their sovereignty, while paying heed to principles under international customary law, such as those involving good neighbourliness are also discussed in Chapter 3.1.1(a). The exercise of sovereignty, within the jurisdictions of the three case study countries, as they enforce their proposed model national laws in accordance with obligations under the Basel, Bamako Rotterdam and Stockholm Conventions, which entitle

them to either regulate or ban certain categories of toxic waste, also ties in with the extent to which sovereignty operates and is curbed, with regard to environmental issues, and toxic waste trade regulation. This is discussed in detail in Chapter 3, with Liftin as an important reference.<sup>61</sup>

### 2.3.2 (a) Article XX: National Policy

While permitting countries to deviate from GATT/WTO rules by imposing trade-restrictive policies which they deem to be beneficial to national welfare under national sovereignty, the international trading regime provides guidelines which must be taken into consideration when nations are imposing these regulations for the avoidance of protectionism. Hence, Article XX provides for discriminatory measures which are not disguised restrictions on trade, and are neither arbitrary nor unjustifiable in situations where the same prevalent situation exists between the importing and exporting countries. Having met these conditions, such policies must:

- (i) Protect public morals;<sup>62</sup>
- (ii) Protect human, animal or plant life;<sup>63</sup>
- (iii) Relate to the importation or exportation of gold or silver;<sup>64</sup>
- (iv) Secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, including those relating to customs enforcement, the enforcement of monopolies operated under paragraph 4 of Article II and Article XVII, the protection of patents, trade marks and copyrights, and the prevention of deceptive practices;<sup>65</sup>
- (v) Relate to the products of prison labour;<sup>66</sup>
- (vi) Be imposed for the protection of natural treasures of artistic, historic or archaeological value;<sup>67</sup>
- (vii) Relate to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;<sup>68</sup>
- (viii) Be undertaken in pursuance of obligations under any intergovernmental commodity agreement which conforms to criteria submitted to the contracting parties and not disapproved by them or which is itself so submitted and not so disapproved;<sup>69</sup>
- (ix) Involve restrictions on exports of domestic materials necessary to ensure essential quantities of such materials to a domestic processing industry during periods when

the domestic price of such materials is held below world price as part of a governmental stabilization plan.<sup>70</sup>

Such restrictions shall not operate to increase the exports of or the protection afforded to such domestic industry, and shall not depart from the provisions of this Agreement relating to non-discrimination.

Though the WTO does not explicitly make mention of environmental exceptions, parties in dispute settlement procedures have often invoked Articles XX (b) and (g), to justify their imposition of national regulations, which are geared towards environmental protection.<sup>71</sup> Based on this, it could be logically inferred that once a country deems it prudent to reject imports of hazardous waste on the grounds that these products are perilous to its environment, then this country could justifiably resort to this course of action, relying on exceptions under these articles and the provisions of certain WTO Agreements, to justify its course of action. On the other hand, it would be recommended that the WTO also consider incorporating explicit environmental considerations into these exceptional clauses. The main idea here is to depart from the current system where sustainable development simply sheds some degree of light on certain WTO rulings, to a system where environmental considerations are given more prominence here, thereby balancing the scales between trade objectives and environmental concerns. This has been discussed in Chapter 4.3.9, under the workings of the WTO Committee on Trade and Environment.

In conformity with WTO procedures for amendment of texts, this proposal of this thesis could be made by WTO members or Councils to the WTO Ministerial Council, which then requires two-thirds vote of the overall membership before the amendment can come into effect. However, if the WTO determines that this amendment will not affect the rights and obligations of member states, it comes into force when approved by all member states.<sup>72</sup> In the present case, allowing these exceptions mean that member states have more justification in not fulfilling their free trade obligations to accept external goods such as PCBs, and imposing trade barriers on other WTO trading partners in this case. Trade barriers are imposed on the grounds that legitimate and imperative environmental health considerations should override free trade. This inevitably suggests that the obligations of all member states

may be affected. Hence, once these exceptions are approved by all member states, this proposal of this thesis for explicitly incorporating environmental concerns as part of Article XX, may be realised. This would actually pave the way for more specificity when interpreting WTO environmentally-related trade disputes, and give clearer guidelines for ruling on disputes which arise in this realm. It will ensure that the environmental track becomes better represented in the WTO, the Basel Convention becomes more deeply reflected and the WTO's commitment to sustainable development becomes clearer.

In conformity with Article XX exceptions, the GATT/WTO Agreement on Sanitary and Phytosanitary Measures, for instance, allows governments to regulate imports of goods which relate to food safety, animal and plant health and hygiene, thereby taking explicit recognition of environmental objectives while the General Agreement on Technical Barriers to Trade grants the right of state control over trade in certain products such as paper and electrical instruments, and ensures the compliance of industrial standards hereby.<sup>73</sup> Under the General Agreement on Agriculture, environmental programmes are exempt from cuts in subsidies. The WTO Subsidies and Countervailing Agreement allows subsidies of up to 20% of firms' costs, for adapting to new environmental laws. Under the TRIPS, governments can refuse to issue patents that threaten human, animal or plant life or health, or risk serious damage to the environment.<sup>74</sup> Pursuant to the GATS, policies affecting trade in service for protecting human, animal or plant life are exempt from normal GATS disciplines under certain conditions.<sup>75</sup>

From this perspective, Ghana, under its Trade Regulations and Standards Code prohibits imports of substances such as narcotics, toxic waste and foreign cigarettes without a warning notice.<sup>76</sup> Foreign soil, counterfeit notes and coins of any country are also prohibited by local law.<sup>77</sup> Export controls include narcotics, parrots and cedis in excess of 5,000.00 cedis.<sup>78</sup>

Similarly, the Ivorian municipal trade legislation prohibits imports of live animals and genetic material, unless these have gained the veterinary approval of the Ministry of Agriculture. Other prohibited products under this law include toxic waste, plastic bags, narcotics, explosives and illicit drugs.<sup>79</sup>

In the same vein, South African Tobacco Products Control Amendment Act, No. 12 of 1996 (which amends the Tobacco Products Control Act, Act No. 83 of 1993) provides for the prescription of maximum yields of tar, nicotine and other constituents in tobacco products. In conformity with this requirement, the Minister of Health in Government No. R 974 of 2000 stipulates that the amount of tar must not exceed 15 mg per cigarette and the nicotine yield not greater than 1.5 mg per cigarette, as from 1 September 2001. As from this date, they shall not be more than 12 mg for tar and 1.2 mg for nicotine per cigarette, as from June 2006.<sup>80</sup>

The discussion of these exceptions, particularly the extraterritoriality principle, is an important point for this study. By extraterritoriality, this means that a state does not impose rules on how another state should govern its affairs. The contrary would violate the principle of territorial sovereignty, where one state imposes standards to be adopted in another state's national affairs, thereby interfering with the national policies in another's territory. This is highlighted in Chapter 3.5.2(b).

Thus, in the famous *US-Mexico Tuna Fisheries Case*, it was held that the US was free to protect its national environment. However, it was not justified in seeking to ensure that Mexican and Venezuelan exported tuna should be caught in a manner, so as to reduce the dolphin population in Mexican sea.<sup>81</sup>

On the other hand, excessive free trade without some degree of caution could also result in dire environmental consequences, as reflected in the introductory chapter and ensuing discussions of this thesis.<sup>82</sup> Hence, the reason for the decision in the *Shrimp-Turtle Case*, where extraterritoriality may be allowed. In *Shrimp-Turtle*, the WTO held that the US was justified in seeking to protect turtles in the territories of Thailand, Indonesia, Malaysia and Philippines. This is perhaps understandable, because though one state cannot impose the environmental standards to be followed by another in production methods within the other's territory, given the era of sustainable development, green trade must be promoted to the greatest possible extent, and uncontrolled trade avoided.<sup>83</sup>

The very fact that the WTO, at its inception, established a Committee on Trade and Environment, mandated to oversee environmentally-related aspects of trade matters, whose work would be to build a constructive relationship between trade, environment and sustainable development, and not to contravene these issues against one another, demonstrates the rising importance of environmental issues in international affairs, including international trade.<sup>84</sup> This also explains the WTO's upholding the French ban on imports of carcinogenic asbestos, as these can cause great instances of cancer and should not be traded in.<sup>85</sup> By so doing, it is envisaged that countries, and specifically, the more powerful nations may not, under the guise of the free trade concept, export potentially dangerous goods such as certain forms of hazardous waste material, to developing countries' territories, as has sometimes occurred. On the other hand, third world countries including the three case study countries of this thesis, will in their desire to improve their economic status, export environmentally friendly goods to industrialised and less developed ones. The contrary would suggest the advancement of free trade to the extent that the environment of the importing country gets destroyed. A protectionist approach then would be the better of the two.

#### 2.3.2 (b) Regional Agreements: Article XXIV

GATT/WTO exceptions to its basic principle of non-discrimination also permit the establishment of bilateral, trilateral and regional groupings such as Free Trade Areas and Customs Unions.<sup>86</sup> Regionalism and these other groupings are often perceived to be beneficial as they help eradicate custom duties and tariff barriers amongst participating countries in a smaller context, thereby, enabling them to gain a stronger and firmer foothold in global trade.<sup>87</sup>

It is notable that such a situation would particularly suit the needs of the three case study countries as well as those of the continent, which have sometimes been marginalised during international trading negotiations. However, these groupings should not necessarily flaunt the rules of a free and fair global trading regime and should enable them to gain a stronger base for prospective trade negotiations<sup>88</sup> and from the viewpoint of this thesis, illicit toxic waste trade controls. Hence, this GATT/WTO exceptional clause functions to ensure that while parties, in a bilateral/regional trading agreement derive the relevant benefits of free



trade, trade barriers will not be created to non-members of such an agreement, in a manner which will be consistent with the GATT/WTO. In this sense, it could also be advocated that using bilateralism, trilateralism and regionalism, toxic waste trade be controlled, by developing appropriate legal regimes in each of these contexts, in Africa. One very important regional mechanism which is cited in Chapter 4.7, is the NAFTA. The reasoning behind this emphasis on this particular trilateral initiative, set up between the USA, Canada and Mexico is to demonstrate how its commitment to free trade also, enables it to adhere to an environmentally sound legal regime. This could be a lesson for the African regional and the sub-regional groupings discussed below.

It is noteworthy that the African groupings discussed here only constitute a part of the many other African regional and sub-regional mechanisms. The Indian Ocean Commission and Arab League, as indicated in Chapter 3.4.13, are regional groupings involving Africa, and not exclusive African mechanisms such as the ECOWAS and SADC. However, as the focus of this thesis is not on the operation of FTAs, not all of these groupings are discussed here. The main aim of discussing these blocs here then is to simply illustrate that a cautious implementation of a given FTA can help its member states to realise the gains of free trade. Furthermore, as Chapter 2 of this thesis dedicates itself to free trade, discussions here are limited to the trading activities of these groupings. Then in Chapter 3, more analysis is made of the work which these mechanisms carry out in trade and environment, and more specifically, toxic waste trade. This is because that Chapter concerns itself with the legal protection of the environment within the context of toxic waste trading activity.

#### 2.3.2 (b) (i) OAU/AU

With the aim of deriving the advantages which may result from regional integration, as discussed in Chapter 2.3.2 (b) above, the Pan African Conference in 1947 envisioned the creation of a continental organisation for promoting inter-African co-operation and co-ordination in crucial areas such as trade. Solidarity in political and social spheres, for example, were also foreseen. This vision saw the creation of the OAU in 1963.<sup>89</sup> Regional integration in trading matters is most relevant to this Chapter of this thesis. The goal of regional economic integration was further reinforced through the Lagos Plan of Action for the Economic Development of Africa (1980-2000), followed by the Abuja Treaty of 1991,

both of which sought *inter-alia*, to establish an African market covering the entire continent. This culminated in the setting up of the six-phased Treaty of the African Economic Community in 1994. During phase I of the operation of this Community for instance, the treaty requires *inter-alia*, the strengthening of African Regional Economic Communities (RECs).<sup>90</sup> These RECs include the ECOWAS and other FTAs which are discussed in subsequent portions of this sub-chapter. The OAU, as indicated earlier, has now been replaced by the AU which further enhances the objectives of promoting regional integration in Africa.<sup>91</sup>

Regarding the contribution of the OAU to free trade through regionalism, the strengthening of the role of the ECOWAS, as envisaged *inter-alia* in Phase I of the Treaty of the African Economic Community, can be cited as a case in point. Under ECOWAS, the dismantlement of trade barriers and abolition of stringent visa requirements amongst ECOWAS citizens travelling from one state to the other in the sub-region, is discussed in Chapter 2.3.2 (b)(iii). This could be seen as a positive tool which has improved the flow of trade in this region, under the Market Integration Programme of this REC. Though other problems need to be tackled within this REC and others in Africa, the fact that ECOWAS has made such progress, especially within the past few years, also shows the stronger role which it is gradually coming to play, at least in African economic integration and within the African Economic Community. To a great extent, this could be said to reflect a realisation of part of the goals of Phase I of the Treaty of the African Economic Community. On the other hand, owing to the numerous wars and internal conflicts within many countries, it has been sometimes almost impossible to ensure that some of these high-sounding theoretical ambitions are realised in the OAU and also, other African sub-regional mechanisms for that matter. The establishment of a single continental market, for instance, is yet to take place. However, under the newly created AU and its special Peace and Conflict Council, it is anticipated that the political situation within the continent be ameliorated, as a pre-requisite for the effective implementation of regional trade agreements, so that its successes are felt in reality. It is expected that the AU Peace and Security Mechanism will work in close collaboration with a similar one under NEPAD.<sup>92</sup>

### 2.3.2 (b) (ii) NEPAD

The NEPAD could be basically perceived to have been an outcome of the Millennium Partnership for the African Recovery Programme (MAP) and OMEGA Plan. The two latter plans sought to forge a new collaborative relationship between African countries, and also, between Africa and the industrialised countries, for a deeper participation of Africa in the globalisation process. This aim was seen as instrumental in bridging the developmental gap which exists between the former group of countries and the latter. On 3 July 2001, the MAP and OMEGA plans were amalgamated. With this, the NEPAD initiative begun and was approved by the OAU Heads of State Summit on 11 July 2001 in Lusaka, Zambia. It was endorsed by the leaders of G8 countries on 20 July 2001. On 23 October 2001, the policy framework was finalised by the Heads of State Implementation Committee. With this, the NEPAD was created.<sup>93</sup> After the AU Heads of State and Government of African Member States endorsed the NEPAD programme during the First AU Ordinary Session in Durban, South Africa in 2002, they formally integrated the NEPAD into the legal structure and workings of the AU, at the Second AU Ordinary Session in Maputo, Mozambique in July 2003.<sup>94</sup>

This initiative is basically a detailed, integrated programme of action, conceived and institutionalised by African leaders for the redevelopment of the African continent. This is through the enhancement of fundamental objectives-social, economic and political goals, in a coherent manner. The NEPAD is predominantly a commitment that African leaders are making to African people and to the international community, to place Africa on a path of sustainable growth and to ameliorate Africa's integration as a whole entity, and into the global economy. It thereby envisages the establishment of a new partnership with the rest of the world.

As distinguished from other African initiatives, the unique feature about NEPAD, which ensures its future success are the circumstances surrounding its partnership. These characteristic features could be highlighted here. They include the involvement of Africans in its formulation, the establishment of an African Peer Review Mechanism to oversee the workings of NEPAD and also, the institutionalisation of a Conflict Prevention Mechanism,

to ensure that peace and political stability prevail, in order to enable the developmental goals of this instrument to be uninterruptedly accomplished.

NEPAD is also geared towards involving Africans in the developmental agenda of their continent. In this regard, this initiative is formulated by African themselves and consequently has widespread support from African countries including the three case study countries of this thesis.<sup>95</sup> The involvement of civil society and the public in NEPAD decisions also assure its future success.<sup>96</sup> It has been recognised though, that African Heads of State and Government will have to be enlightened on making the impact of the NEPAD felt among the populace in their respective countries. This would enable the NEPAD to avoid possible failure. It is also hoped that the NEPAD Steering Committee will work in close collaboration with the African Regional Economic Communities, international organisations and other agencies, as this will enhance public enlightenment on relevant issues concerning the workings of the initiative.<sup>97</sup>

Furthermore, the establishment of an African Peer Review Mechanism under NEPAD conforms with the Constitutive Act of the AU.<sup>98</sup> This mechanism seeks to review the successes and challenges of NEPAD, as envisaged in its goals.

The institutionalisation of a Conflict Prevention Mechanism with concrete and practical steps to achieve its success, is another assurance of the future success of this mechanism. It is commendable that such a mechanism seeks to prevent conflict altogether rather than dwell on conflict resolution. With such a timely initiative, peace and political stability which are desperately needed by this continent and which are a pre-requisite for the meaningful realisation of any other policies in any sector, enable other NEPAD programmes such as those of economic integration and environment to become easily implementable. This could also work alongside the Peace and Security of the AU, discussed above.<sup>99</sup>

The priority sectors of the operational activities of NEPAD include the Acceleration of Intra-African Trade and The Environment.

Within the NEPAD framework, it is planned that ECOWAS, SADC, EAC and the other African Regional Economic Communities become the focal point for the implementation of all these programmes of NEPAD, in order to facilitate the workings of the mechanism.<sup>100</sup>

Owing to the African regional dimension which this partnership assumes in terms of economic co-operation for development enhancement, it might be necessary for the NEPAD and the AU mechanisms to work in closer collaboration with each other. With more increased AU capacity to manage the NEPAD, more effective coordination between the programme elements of NEPAD and AU, and the avoidance of duplicated programmes between AU and the NEPAD, there could be more coherence on the part of these two mechanisms in attaining future developmental goals for the continent for instance, in ensuring regional economic integration and implementing the goals of the Bamako Convention.<sup>101</sup>

#### 2.3.2 (b) (iii) ECOWAS

In 1975, the Economic Community of West African States was created by Ghana, Côte d'Ivoire, Benin, Burkina Faso, Senegal, The Gambia, Niger, Nigeria, Sierra Leone, Cape Verde, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania and Togo. This West African sub-regional mechanism has as its main objective, the promotion of economic integration. To this end, work within the ECOWAS is categorised into eight organisational sectors, namely, Trade and Monetary Union; Travel, Transport and Communications; Economic Development, Defence, Energy, Agriculture and Social Programmes.<sup>102</sup> To date, this organisation has made a great deal of accomplishments, thereby, demonstrating the positive attributes which can be associated with the workings of an FTA. These successes include the following:

(a) Through the abolishing of visas and entry permits for ECOWAS citizens when travelling from one country to the other, the low rates at which these citizens are able to purchase their airport taxes, hotel bills and air tickets and the fact that such transactions can be effected in local currencies, the objective of free movement of persons is gradually being accomplished. Through this, it generally becomes easy for people to travel with goods from the territory of

a given ECOWAS member state to another. In this sense, economic integration leads to the promotion of the free movement of persons and free movement of goods.<sup>103</sup>

(b) ECOWAS records improvements in Economic Development. In this regard, the successful establishment of the private regional investment bank, Ecobank Transnational Incorporated, based in Lomé, Togo, can be cited as a case in point. This bank is in operation to harness the investment potentials of the West African region. It oversees the organization of an Industrial forum, once every two years, to promote regional industrial investment.<sup>104</sup>

On the other hand, remaining challenges which face ECOWAS include having to ensure strict border controls, for instance, how to tackle bribery and corruption of customs officials at West African borders. These officers should be held strictly accountable, with nearby police stations to closely monitor the prevalence of law and order at the borders. This could actually help prevent many illegal practices including the illicit influx of toxic waste from one country to the other, as seen, for instance, in the case of Nigeria and Côte d'Ivoire to Ghana.<sup>105</sup>

#### 2.3.2 (b) (iv) SADC

In 1992, the SADC was established as a successor to the Southern African Development Coordinating Conference. Member countries of this community comprise Angola, Botswana, the Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. The objectives of SADC are to attain economic prosperity, development and stability, through trade liberalisation and political and economic integration. Headquartered in Gaborone, Botswana, the SADC seeks the avoidance of a cumbersome bureaucracy by dividing responsibility for specific development sectors, namely, food security, land and agriculture, infrastructure and services industry, trade, investment and finance, human resources and development, science and technology, natural resources and the environment, social welfare, information and culture, politics, diplomacy and international relations, and peace and security.<sup>106</sup> Another example of a successful project under SADC is the SADC Industrial Energy Management Programme. This project, *inter-alia*, assisted partners in initiating training programmes by their own and continued work on the development of a qualifications framework for energy

management.<sup>107</sup> This and other projects are made possible by concerted efforts of SADC members. The benefits of free trade are further illustrated hereby. On the other hand, challenges facing SADC include having to combat persistent drought and famine in certain SADC member states, such as Mozambique and Zimbabwe.

#### 2.3.2 (b) (v) COMESA

In 1994, COMESA was set up by 19 Member States from Eastern and Southern Africa. This means that members of SADC and EAC also comprise COMESA. This African sub-regional mechanism thereby replaced the Preferential Trade Agreement for Eastern and Southern Africa which had been created in 1982. Currently, member states of COMESA are Angola, Burundi, Comoros, the Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Namibia, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe. Through the promotion of trade liberalisation, COMESA has *inter-alia* launched a comprehensive Monetary and Financial Co-operation Programme and has been the first African sub-regional mechanism to introduce its own Travellers' Cheques.<sup>108</sup> Remaining challenges facing COMESA include the need to combat drought and famine in member states, as indicated in the case of SADC above.

#### 2.3.2 (b) (vi) EAC

At its inception as far back as 1900, the EAC comprised a bilateral Customs Union between Kenya and Uganda. This was joined by Tanzania in 1922. Since then, there have been a series of more elaborate regional integration agreements in East Africa. These include the East African High Commission (1948-1961), the East African Common Services Organization (1961-1967) and the former East African Community (EAC), which lasted from 1967 until its collapse in 1977. This demise was widely regretted in the region. Member states therefore agreed to resume work on achieving regional co-operation, under the aegis of the Mediation Agreement of 1984. This culminated in the signing of the Treaty for the Establishment of the EAC in 1999, with the headquarters of this trilateral mechanism in Arusha, Tanzania.<sup>109</sup>

An assessment of the workings of this mechanism reveals success stories which in turn demonstrate the advantages of implementing a free trade strategy. For instance, there have

been a series of massive tariff reduction rates on the part of member states. While Kenya applies 90%, Uganda applies 80% tariff reductions and non-tariff barriers to cross border trade have been effectively eradicated. Additionally, the EAC has witnessed the harmonisation of making rules and regulations, the ongoing harmonisation of Environmental Regulations and Environmental Impact Assessments and the current Study of Economic Potentials and Constraints to the Development of Lake Victoria and its Basin as an Economic Growth Zone. Current work of the EAC is principally focused towards the attainment of a Common External Tariff by 2004.<sup>110</sup> Once this aim is fully accomplished, this could mean a freer flow of trade in goods and services across borders, since the same conditions prevail and will be applied for both local and foreign goods, in terms of regulations and policies.

### 2.3.2 (b) (vii) ECCAS/CEMAC

The ECCAS/CEMAC is a substitute of the Union of Central African States (UDEAC) which came into being in 1964, the Monetary Union of the Central African States (BEAC) and the Economic Union of Central Africa. Member states of this organisation are Cameroon, Central African Republic, Congo Brazzaville, Gabon, Equatorial Guinea and Chad. In 2002, the treaty establishing this Community was established in N'djamena, Chad. This treaty has currently been ratified by presidential decrees of Cameroon, Equatorial Guinea and Chad.<sup>111</sup>

The fundamental objectives of CEMAC are to establish a deeper form of collaboration amongst member state citizens, with a view to intensifying their solidarity; promote free national markets through the eradication of trade barriers, co-coordinating developmental programmes and harmonizing industrial projects, developing solidarity of member states, so that disadvantaged regions can derive some benefits thereon, and create an African market.

To a very large extent, the CEMAC faces many challenges. As weak institutional mechanisms and political instability abound within the Central African Region, for instance, ambitious though CEMAC may sound, in practical terms, its positive impacts become questionable.<sup>112</sup> If these are overcome through adopting some of the recommendations in this chapter, the positive benefits of free trade could be felt in reality. The workings of



NEPAD and the AU, together with their conflict prevention mechanisms, can make further improvements on this. In this sense, economic stability can be the ultimate result of concerted efforts, regional integration and FTAs.

#### 2.3.2 (b) (viii) Indian Ocean Commission (Commission de l'Océan Indien)

Created in January 1984 by the Victoria Co-operation Agreement, membership to this Commission originally consisted of Mauritius, Madagascar and Seychelles. Since January 1986, membership has now been extended to cover the African, Caribbean and Pacific islands of Mauritius, Comoros, Madagascar, Seychelles and Réunion, which is represented by France. These islands are located South West of the Indian Ocean. The main aim of the Commission is to promote sustainable development within these islands. While these islands are somewhat isolated from each other and even African countries in physical terms, their similarity lies in their commitment to sustainable development, poverty reduction, economic development and globalization.<sup>113</sup>

In this regard, the work of the Commission focuses on the attainment of diplomatic, economic and commercial co-operation, as well as agricultural, maritime and ecosystems' conservations and the promotion of justice. To date, successes of the workings of the Commission include implementation of projects within the Indian Ocean region on regional tourism, environmental protection, AIDS and environmental education. It is noteworthy that environmental education has been included in the curricula of primary school education for children from the age of 10 to 13.<sup>114</sup> This is a remarkably positive step and could be followed by NEPAD and the other African mechanisms being discussed in this portion of this thesis.

#### 2.3.2 (b) (ix) Arab League

In 1943, the Egyptian government, together with other Arab states, first recommended the establishment of the Arab League, in order to promote closer co-operation and Arab solidarity, without the loss of self-rule that would result from total union. Pursuant to this proposal, in 1945, the Arab League was established. Egypt, Iraq, Lebanon, Saudi Arabia, Syria, Transjordan (which later became known as Jordan, as from 1950) and Yemen were the original members of the League. Membership to the League currently consists of certain

Arab speaking countries; namely, Algeria, Egypt, Lebanon, Oman, Somalia, the United Arab Emirates, Bahrain, Iraq, Libya, Palestine, Sudan, Yemen, Comoros, Jordan, Mauritania, Qatar, Syria, Djibouti, Kuwait, Morocco, Saudi Arabia and Tunisia. Its headquarters is in Cairo, Egypt.<sup>115</sup>

The primary objectives of the League are to develop political, economic, cultural and social programmes which are designed to enhance the interests of member states. To this end, its work is carried through a series of subsidiary committees including the Health, Information, Human Rights and Legal Committees. To this, it could be suggested that an Environmental Committee could also be established.

The Arab League has served as a forum for member states to co-ordinate their policy positions and deliberate on matters of common concern, such as the resolution of some Arab disputes and the curbing of conflicts such as the Lebanese civil wars of 1958.<sup>116</sup> The Arab League has further functioned as a platform for drafting and concluding most landmark documents promoting economic integration amongst member states. These documents include the creation of a Joint Arab Economic Action Charter, which highlights the principles for economic activities of the League. It has played an important role in shaping school curricula and preserving manuscripts as well as Arab heritage.<sup>117</sup>

#### 2.3.2 (b) (x) EU/ACP Agreement

In 1975, the Lomé Convention was signed between the EU and 46 ACP countries, as a successor to the hitherto Yaoundé Convention between the EEC and the African and Malagasy States associated with the Community. Through Lomé, trading preferences are accorded by the EU to the ACP countries. It is important that this be done in a GATT-consistent manner though.<sup>118</sup>

The Lomé Agreement provides for development assistance from the EU to its current 71 ACP states. Having been negotiated five times, the fourth Lomé Convention is important in illustrating how free trade in the form of FTAs can be used as a tool to combat illegal toxic waste trade practices. This will be analysed in Chapter 3. With due regard to discussions in this chapter, Lomé has enabled trade preferences and concessions from the third world to

developing countries. Pursuant to the signing of the ACP-EU Post-Lomé Agreement on 1 January 2000 in Fiji and its conclusion under the Portuguese presidency in May 2000, this agreement, comprising 71 ACP countries, succeeded the Lomé Convention. It covers ACP/EU integration in three main areas, namely, political issues, development strategies and economic and trade co-operation, with a particular link between the last two sectors.<sup>119</sup> Subsequently, the Cotonou Agreement, the most up to date successor to the Lomé Agreements, was concluded between the EU and its member states on the one hand, and ACP States on the other. This was done on 23<sup>rd</sup> June, 2000 in Cotonou, Benin. While stating its main goal as the reduction and ultimate eradication of poverty, the Cotonou Agreement notes that this can be attained through sustaining economic, human, social and political development in ACP countries in various ways. While valid for twenty years, the Cotonou Agreement is to be revised every five years.<sup>120</sup>

From the discussions above, the following recommendations are made for a better realisation of the principle of free trade under the AU, NEPAD and the above-mentioned African sub-regional mechanisms:

- There should be an eradication of customs barriers on the one hand and strict enforcement of rules concerning cross-border movement of persons and goods on the other. We need to draw such lessons from the principles concerning the free movement of persons, goods, *inter-alia*. Though visa controls have been abolished, sometimes, moving from one country into another could be unnecessarily burdensome, especially in African countries. This holds true in West Africa, for example, where there is often bribery of officials at the customs barriers as a pre-condition for the free movement of persons from one country to another. Therefore, one is advocating strict governmental control in this regard, as well as access of individuals to police officials, who should really be stationed in close proximity (that is, within walking distance) to each border post. This will facilitate monitoring and complainants' access to assistance.
- If Africa is intent on implementing a mechanism such as the NEPAD and this is the era of the renaissance, then clearly, we should be able to rely on each other. The concept of specialisation needs to be practicalised and could serve a useful tool in this vein. It is

commendable that South Africa engages in trading practices, such as recycling used car batteries, as will be portrayed in Chapter 5.4. Ghana could then specialise in the recycling of used electrical appliances while Côte d'Ivoire dwells on crude and used petroleum oil. Such practices ought to be encouraged, with free flow of trades from one part of the continent to the other, with each country adept at manufacturing certain particular goods, whether for just importation, or even, for recycling and re-sending back to the country of importation.

- It is proposed that NEPAD and the other sub-regional mechanisms in this continent include environmental considerations in its agenda and especially, in its trading agenda. This will be detailed more in Chapter 3. What should also be encouraged in this regard is a strong body, which would be designated as the Committee on Trade and Environment. In this advent of sustainable development, such a body should not overlooked. The main thrust of this mechanism is to work closely with all African countries, on an individual, regional and continental bases, to ascertain the sort of goods, which they import every now and then. By so doing, this Committee will be able to ascertain when and where goods are hazardous and must be rejected, when they should be accepted and under what circumstances these must be done. They would work in close collaboration with the Ministries of Trade and Environment of various African countries. Once again, the examples of NAFTA and the EU for instance, can be borrowed and bent for our purposes.
- Environmental issues should be included in primary school curricula, similar to ongoing practices within the Indian Ocean Commission.
- For free trade to be truly functional, the infrastructure and communication system of this continent also needs a significant improvement. Though this is being promoted within the sub-regional context,<sup>121</sup> it may be suggested that this be extended to the regional level. Within this context, African governments need to reflect upon the timeliness of finding funding to construct very strong railway lines from Cape to Cairo, from Maputo to Dakar, with strong transit points in Nairobi and Accra, as well as other African cities, backed by strong check points at each stop point. This would facilitate the free flow of

trade in this continent, enable Africa to pursue its objective of a single common market and ultimately, a single common currency, perhaps.

### 2.3.3 Relationship of the WTO to Three Case Study Countries

All three case study countries ratified the Agreement which established the WTO on 1<sup>st</sup> January 1995. Consequently, in the South African Trade Law, Ghana's Trade Law and Ivorian Trade Law, free trade is enhanced, at municipal level, in strict accordance with the WTO principles enunciated above.<sup>122</sup>

For South Africa, while levying excise duties on imported products such as alcoholic and non-alcoholic beverages, tobacco and tobacco products, this country adheres to the Customs Valuation Agreement of the WTO. Due account must be taken of the fact that such taxes are not just imposed anyhow. On the contrary, the dutiable value of the goods imported into South Africa as well as other customs duties and contingency measures, subject to the Board on Tariffs and Trade Acts (Act 107) (1983, as amended) are calculated in conformity with the WTO's rules.<sup>123</sup> Furthermore, South Africa has lifted import charges and is able to integrate more deeply into the global economic order.<sup>124</sup> The existence of numerous South African industries in Ghana, for example, is a very encouraging trend in this sense and exemplifies such deeper economic integration in African and world trade.

Ghana's commitment to free trade suggests that it exploits its comparative advantage by exporting cocoa and other primary products without imposing unnecessary taxes on imports and exports which contravene WTO rules.<sup>125</sup>

For Côte d'Ivoire, membership to the WTO also means that when exporting cocoa and importing foreign produced goods, the government levies taxes in conformity with WTO Customs Valuation Agreement.<sup>126</sup>

## 2.4 Emerging International Trade Principles and How They Relate to International Environmental Law

The deeper commitment to economic integration is evident through the various series of GATT rounds and continued efforts on the part of world leaders, to eradicate trade barriers

between countries. After tariff reductions and the granting of concessions to developing countries as well as the introduction of new codes during certain rounds, another GATT round metamorphosed in the WTO. This newly established regime, and its various agreements, such as the GATS, and TRIPs which enable global trade to be extended to new areas of sectoral activity such as services and intellectual property, demonstrate the commitment on the part of world leaders to achieve a thoroughly liberalised free trading system. Consequently, from 1945 to 1995 and present day, trade always expands and extends to novel areas.

It must be noted however, that such trade is not conducted in a manner which is oblivious of environmental considerations. As at 1979, some results of the Tokyo Round such as the Technical Barriers to Trade and the Sanitary and Phytosanitary Agreements, for instance, show the extent to which trade may be restricted for the protection of human and environmental health.<sup>127</sup> The incorporation of these Codes into the new WTO regime, the establishment of a Committee on Trade and Environment<sup>128</sup> and WTO rulings including the *French Asbestos Ban*<sup>129</sup> show that the single minded pursuit of free trade has been gradually transformed into a more dualistic approach of safeguarding environmental principles while conducting free trade, in present day. These become easily reconcilable to principles such as those of sustainable development and the precautionary principles in environmental law. They also help bridge the gap between free trade and environmental protection.

At the same time, environmental initiatives such as the Rio Declaration<sup>130</sup> also recognise that trade measures for environmental purposes should not create an arbitrary or unjustifiable restriction on international trade, as discussed in Chapter 4.4.1.

This new approach of the international legal trade and environmental regimes, ensures the attainment of economic progress, ecological balance and social development. These are the three important facets of sustainable development, as indicated in Chapter 3.2.1. Within the framework of both international and national legislation, this in turn facilitates the enforcement of toxic waste trade policies.

On the other hand, discrepancies sometimes exist, with due consideration, for instance, to certain rulings such as the *WTO Beef Hormone* ruling (1997),<sup>131</sup> which ruled against the EU ban on beef containing artificial hormone residues. Therefore, it becomes necessary that the WTO, under its Committee on Trade and Environment, stipulate clearer guidelines, in addition to the exceptional situations in Article XX, as to when these prohibitions are permissible. Perhaps, this could be done in co-operation with the Basel Convention, for example, which has expressed its willingness to work collaboratively with this Committee on these matters, especially, as they touch on toxic waste trade.<sup>132</sup>

## **2.5 Other Free Trade Mechanisms**

With the aim of deriving such benefits from the implementation of market liberalism, governments have sought to operate FTZs. These originated from the old concept of the free port.<sup>133</sup>

### **2.5.1 Free Trade Zones**

The concepts of free ports and FTZs are sometimes confused with a wide range of similar export-oriented free-trade zones, such as EPZ, FIZ and FTAs. For ease of discussion, each of these terminologies will be discussed in terms of how they operate, with a view to distinguishing them from each other.

FTZs were hitherto known as free ports. The special stockades in the Greek ports of Chalcis and Piraeus were among the first ever known free ports.<sup>134</sup> For R.S Thoman, examples of the first free ports are Hong Kong and Singapore, and to a lesser extent, Gibraltar and Aden.<sup>135</sup> These ports served as points of transshipment and accumulation of foreign merchandise for home consumption, *inter-alia*, thereby, facilitating free trade. Another example of a free port was the Roman free port on the Aegean island of Delos which was established purposefully for enhancing free trade. This function it performed, by acting as a customs free center to promote trade amongst Egypt, Greece, Syria, Northern Africa, Asia and Rome.<sup>136</sup>

Jayawardena notes that prior to the establishment of these centres, similar free ports of Genoa, Venice and Gibraltar were also established for the same purpose. Hence, in 1888, the FTZ of Hamburg was established as the main pacesetter of FTZs. It was granted the special

privilege of manufacturing, on condition that it would not compete with the hinterland industry and would stay export-oriented.<sup>137</sup> In spite of the proliferation of FTZs, it was not until 1934 that they became operational in the US, through the Foreign Trade Zones Act. This was reinforced by the 1950 Cellar Amendment manufacturing in the U.S. free ports.<sup>138</sup>

Through the implementation of FTZs, a wide variety of incentives and customs-free privileges are granted to importers and exporters of companies. These companies thereby benefit from such schemes in that they are able to save on taxes. In the light of such advantageous benefits of FTZs, in March 1965, Taiwan established its first FTZ outside Europe. In 1970, Kaoshing, and in 1970, this country set up two more FTZs, a large one in Nantze and a small one in Tiachung.<sup>139</sup>

It has been observed that the FTZs, attracted foreign investments, contributed to the export drive by 10% of in the 1960s in this country, successfully led the export-oriented industrialization programme and created a skilled labour force.<sup>140</sup> The advantages of adhering to a free trade strategy are easily discernible here. Similarly, the creation of FTZs in Seoul and Incinon in 1965 in South Korea, according to the government index of industrial growth, led to an average rate of growth of 15.9 per cent. Compounded with increases in employment, this has been sustained for the 20 years from 1960-80.<sup>141</sup> Encouraged by these resultant benefits of this free trade mechanism, the South Korean government further expanded on the FTZ initiative by opening up three more FTZs, in Masan in 1972, Iri in 1974 and Kumi in 1975. These, in addition to the earlier ones, offered employment to as many as approximately 115,000 people by 1981.<sup>142</sup>

In Ghana, FTZs were established under the FTZ Act 504 in May 1996. These consist of a parcel of land near the Tema Steelworks and two other sites located at Mpintsin and Ashiem, near Takoradi.<sup>143</sup> The seaports of Tema and all pieces of land related to these areas also fall under the free trade programme.<sup>144</sup> The law also permits the establishment of single factory zones outside or within the areas mentioned above.<sup>145</sup> Under the law, the company qualifies to be a free zone company if it exports more than 70% of its products.<sup>146</sup>



In Côte d'Ivoire, the government plans to establish an FTZ in the foreseeable future as these have not existed to date. This owes to the high port costs and maritime freight rates, with their attendant constraints on the development of in bond manufacturing and processing. The closest mechanism to an FTZ in this country is the system of bonded warehouse and bonded zones within factories. These operate in Abidjan. Within these mechanisms, free trade is facilitated as it enables the transshipment of goods to Mali and Burkina Faso.<sup>147</sup>

In South Africa, there are no FTZs or free ports. However, similar to the case of Côte d'Ivoire, there are a series of bonded warehouses, at various ports of entry into this country. Considering the benefits of FTZs discussed in this Chapter, the South African government, just as that of the Ivorian government, might find it necessary to explore the possibility of setting up FTZs in the South African sea ports of Durban, Cape Town or Port Elizabeth and in the case of Côte d'Ivoire, Abidjan.

#### 2.5.2 Export Processing Zones

EPZs are closely definable areas which are located within the territorial jurisdiction of countries. In such a system, favourable investment and trade conditions are created to attract export-orientated industries, which are usually foreign-owned.<sup>148</sup> These schemes enable imports to be used in the production of exports and can be acquired by manufacturers on a bonded duty free basis. By so doing, they promote free trade. As at 1975, EPZs were operational in fourteen countries, namely, Barbados, Columbia, the Dominican Republic, Eire, El Salvador, India, Malaysia, Mexico, Mauritius, the Philippines, Singapore, South Korea, the Syrian Arab Republic, and Taiwan, with others planned in another fourteen countries, namely, Cyprus, Egypt, the Gambia, Guatemala, Haiti, Indonesia, Côte d'Ivoire, Jamaica, Liberia, Morocco, Nicaragua, Senegal, Thailand and Tonga. This became possible because of the sufficient interest which had been shown within these countries, for EPZs to be included in the range of policy instruments available to formulators of industrial policies.<sup>149</sup>

#### 2.5.3 Foreign Investment Zones

An FIZ is normally an administratively and sometimes geographically specialised area which is accorded many privileges by government. These benefits include favourable regulations

and incentives which aim at foreign investment. FIZs also enhance free movement of goods in trade through favouring the exit and entry of goods in trade. This, it does by permitting the free import of equipment and other material to be used in the manufacture of goods which are destined for export.<sup>150</sup>

#### **2.5.4 Free Trade Areas**

An FTA has been classified as an area which is created by reciprocal multilateral agreements. Such agreements could also be bilateral or trilateral. Through such agreements, customs duties and non-tariff barriers are eliminated in trade among the members of the agreement. In a sense, FTAs could be seen as a “subset” of a free trade agreement which operates between a group of countries, within the whole, that is, the international economic order. Examples of FTA mechanisms are the SADC, EAC and ECOWAS.<sup>151</sup>

### **2.6 Advantages of Free Trade as Opposed to Protectionism**

From previous discussions in this Chapter, economic interdependence can be associated with many benefits; though in exceptional cases, protectionism may yield positive results. Before summarising some of these ascertainable advantages from these discussions, some theoretical analyses of free trade are of relevance. The rationale for protectionism is also referred to. The reason for this is to demonstrate that though this thesis holds the view that on the whole, the three case study countries and others of the world need to liberalise their economies, they might also consider protecting their markets under lawful circumstances, as this could also enhance economic objectives.

#### **2.6.1 Theoretical Insights**

The basic principles of economic liberalism could be pivoted on certain salient points which emanate from the following free trade theorems :

##### **2.6.1 (a) Comparative Advantage and Specialisation**

This concept is a very important tool for this thesis, as it illustrates how South Africa, Ghana and Côte d'Ivoire can each specialise in one or more specific kinds of waste collection and recycling, for re-export to other African countries.

By specialisation, a nation, just as a person, derives benefits from trade by exporting goods or services which it can naturally produce best and is most efficient in trading in. This also links to comparative advantage in productivity. Through this phenomenon, nations are able to gain the greatest possible financial gains. Free trade enables other nations to make maximum benefit of their main exports and the products, which they are able to produce the most and specialise in, that is, one nation reduces trade barriers and can in turn expect similar treatment from another state. This applies to all countries in international trade, and the principle of reciprocity and transparency are hereby achieved.<sup>152</sup>

For example, Ghana's strength lies in its cocoa and gold production, while Côte d'Ivoire's lies in coffee and cocoa, and South Africa's lies in gold and other minerals, *inter-alia*. As these countries are best endowed with manufacturing these products in their respective cases, these become their main exports, and they are specialised in them.

A conceivable situation where specialisation could be demonstrated in toxic waste trade would be the proposals in Chapter 5, for a Waste Stock Exchange Project for Used Batteries (of electrical appliances) and Used Electrical Appliances in Ghana, the recycling of used petroleum oil and continued Petroleum Refinery Project from crude oil and sulphur in Abidjan, and the Waste Recycling Projects for Car Batteries and Used Oil in South Africa.<sup>153</sup>

Trade liberalisation also provides consumers with more leeway for choice and a vast array of goods to choose from. The case of specialisation discussed for instance, demonstrates this. Supposing a country does not produce certain goods, there can be the assurance that through trade liberalisation, these goods can be imported from either countries whose conditions are more suitable to the production of such goods. Moreover, consumers have a chance to choose which goods they deem to be of better quality. For instance, one is not inclined to accept any goods of whatever quality, which may, for instance, be perilous to the environment or public health or safety. The fact that there are other competitors in the international market makes producers give off the best quality product to satisfy the consumers.

### 2.6.1 (b) Innovation and Efficiency

This point was postulated by Smith, who together with Ricardo, stressed the intimate link between the size of the markets and productivity input.<sup>154</sup>

The main idea here is that free trade enables nations to derive dynamic, enormous gains. Owing to the competition they face from foreign firms, local firms become much more productive, much more innovative and much more dynamic. The resultant situation is a massive growth in productivity. Fiercer competition encourages innovation on the part of manufacturers and industries, who are desirous to produce the best goods on the local and international market. This ultimately breaks down obstacles to institutional change, as advocated by the economist, Olson.<sup>155</sup>

### 2.6.1 (c) Economic Growth

Sachs and Warner as well as Smith and Mill, advocate that when countries are open to trade, there are higher growth rates. Here, a correlation is built between free trade and economic performance. Trade increases growth and ultimately resolves the problem of poverty, through the removal of non-tariff barriers, import and tariff barriers and other obstacles,<sup>156</sup> which otherwise block the necessary free trade profits from being made.

Free trade has also led to an improvement in per capita income levels of nations. For example, in indicating the positive benefits of the newly liberalised trade regime, the WTO notes that owing to the fact that countries joined the world economy to open their borders, the UK, US, Germany, Japan, Malaysia and China have been able to double their average per capita living standards. UK took 58 years to double its per capita living standards after the industrial revolution, the US took 47 years, Germany 43 years and Japan 34. But after 1966, Malaysia took just 11 years, Chile 10 years and China 9. Ten developing countries, accounting for almost a third of the world's population-or over 1.5 billion people-more than doubled their average per capita income levels between 1980 and 1995. This owes to these countries' joining the world economy and opening their borders.<sup>157</sup>

This holds true in light of the experiences of the three case study countries for example. In Ghana for instance, after this country gained independence in 1957, the government

nationalised industries. The government marketing board, acting in its capacity as the price control authority, monopolised the purchase of cocoa, and prohibited cocoa farmers from selling cocoa to anybody else. With the reduction in exports, consumer prices in Ghana also rose by 2,200% between 1963 and 1979, while the price paid by the government's marketing board increased by only 600%.<sup>158</sup>

On the contrary, just as the Ivorian government has always practised, when Ghana relaxed price controls and its monopoly on cocoa from 1983, more income began to accrue.<sup>159</sup> Free trade in every part of Côte d'Ivoire, resulted in the massive influx of foreign investors, economic growth, employment creation and sophisticated industrialisation throughout Abidjan, Bouaké, Yamoussoukro and every part of this country, throughout the 1960s until contemporary times.<sup>160</sup> The absence of free trade in South Africa and this country's lack of active participation in the global trading regime precluded it from attaining the highest economic growth which it could have otherwise achieved.<sup>161</sup> If certain pressing problems such as unemployment and the crime wave could be overcome, the trickling down effects of such positive free trade benefits might be more easily realised in present day when South Africa fully participates in free trade. On the contrary, it may be suggested that countries such as the USSR in former times, Ethiopia and Tanzania, if they had not resorted to a complete imposition of governmental controls, import substitution and socialism, might have been better off in economic and developmental terms and not witnessed stagnation and impediments to economic growth. A careful enforcement of these protectionist rules, alongside opening their economies to foreign competition, might have yielded better results.

Based on the above discussions from 2.6.1 (a) to 2.6.1 (c), a reasonable correlation could be drawn between unhampered trade with peace on the one hand, and excessive tariffication/unfair competition with war on the other. Therefore, Cordell Hull (Secretary of State, USA, from 1934-1944, under the Roosevelt Administration), in reflecting on his role in his memoirs, confirms :

"Toward 1916 I embraced the philosophy I carried throughout my 12 years as Secretary of State...From then on, to me, unhampered trade dovetailed with peace; high tariffs, trade barriers, an unfair competition, with war. ..."<sup>162</sup>

In the same light, Stern observes that protection breeds retaliation and worse. An open trading system ...by contrast is thought to be crucial factor for promoting sustainable growth of the world economy in the postwar period.<sup>163</sup>

On the other hand, trade protectionists, including Lord Maynard Keynes, Gray, Bhagwati and Shutt oppose free trade for the following reasons. In times of war, for example, it may be prudent to protect a nation's industries. Furthermore, where there are infant industries in the local context, they may be legally protected, until they attain sufficient economic maturity to compete with goods from foreign markets. For developing countries especially, this would be applicable during their trading activities with developed countries. Free trade could also be destructive to a nation, as its industries will not be able to compete with foreign industries who may also be dumping goods in the markets of the importing country, that is selling goods at low prices in the markets of the importing countries, below the international price. Local markets suffer then. The imposition of tariffs, under protectionism, could in this case resolve the problem of unfair competition which free trade could yield. Free trade has also been said to benefit a minority, at the expense of the majority.<sup>164</sup>

In light of the observation made in Chapters 2.6.2(a), 2.1.1 and 2.1.2 that resources generated under the WTO free trade policies benefit the world's most powerful nations at the expense of the less dominant ones, this criticism of free trade could also be said to be valid. This also reduces developing countries' bargaining power, which, as discussed in Chapter 2.6.2(c), should increase under free trade. For all these reasons, the proposals for the toxic waste trade projects in Chapter 2.7 of this thesis also require that the three case study countries of this thesis (and others in Africa), need to ensure that free trade be strengthened first and foremost in Africa, leading to stronger intra-African trade in toxic waste and other substances, and a prudent incorporation of free market principles into their trading regimes. The fact that further recommendations are made for them to reject imports of substances as discussed in Chapters 3.5.2(b) and 6 of this thesis, also ensures that they adhere to free trade, but impose trade barriers, where necessary.

### 2.6.2 Practical Examples

In addition to these theoretical insights, some examples will be cited at this point to show how free trade could further benefit a nation if promoted carefully. This is in contradiction to a situation of autarky, where growth is stagnant, as a result of unjustified trade-restrictive policies.<sup>165</sup>

#### 2.6.2 (a) Resource Generation

During the fourth WTO Ministerial Meeting in Doha, that is, from 9<sup>th</sup> to 13<sup>th</sup> November 2001, previous WTO Director-General, Mike Moore, observed that over the last decade, the tremendous growth in China's economy as one of the fastest global economies in this regard within the last decade was due to an economic system which is increasingly open to trade and foreign investment. With this country's accession to the rules-based system of the WTO, its economy would be boosted in greater economic terms.<sup>166</sup>

Trade liberalisation could further raise incomes. For instance, according to an estimate by the GATT (1994), the impact of the 1994 Uruguay Round would increase global income by \$235 billion by 2005 from the full market access package.<sup>167</sup> A similar estimate by Nguyen et al also indicates that the Uruguay Round would lead to an increment in global income by \$212 billion from the full market access package.<sup>168</sup> A GATT Report released in 1994 also prognosticated *inter-alia* that by 2005, the WTO would result in the following: the annual income of the US would be \$122 billion; EU: \$164 billion; Japan: \$27 billion and developing countries: \$116 billion. Figures estimating increase in the volume of goods trade range from 9% to 24% once the liberalization of the Uruguay Round comes into effect.<sup>169</sup> On the other hand, though these figures look impressive, the share which developing countries have in these profits is rather meagre. This stems from the fact that their protectionist regulations adversely affect developing countries, while to a large extent, they are pro-free trade. This then shows that developing countries could also adhere to similar patterns in global trade, if need be.

The operations of La Société Ivoirienne de Raffinage in Abidjan, as discussed in Chapter 5.4.16 could also be cited as a case in point. Discussions with officials there have indeed confirmed that recycling in crude petroleum and the subsequent free trade in this substance

with other African countries is a great source of income. For instance, in 1996-1997, there was a total of 8.3 CFA F billion from these activities.<sup>170</sup> Discussions with officials from Ghana's Tema Oil Refinery, Lube Oil Company and South Africa's Fry's Metals company, all discussed in Chapter 5.4, all confirm that free trade in the recycling activities of the various imports in each respective case, yields a great degree of income.

In Chapter 5.3.1(b) (i), all the proposals for importing hazardous waste into the three case study countries were motivated by the promotion of economic activity. This also illustrates the point that free trade could lead to monetary gains.

In this light, the NEPAD could enable intra-African trade and the proposed projects for recycling toxic waste in this continent to be pursued more efficiently and raise more money for workers of these projects.<sup>171</sup> This could ultimately help in resolving the problems of unsustainability and poverty alleviation, which afflicts large sectors of the populace within the three case study countries.<sup>172</sup>

#### 2.6.2 (b) Employment Creation

Through the extension of world commerce to include new areas, the WTO uses its trade liberalisation philosophy as an instrument to create jobs all over the world. This holds true in the services sector, for example, which accounts for 60 per cent of world production. In this regard, Renato Ruggiero (former Director-General of the WTO) in discussing LDC integration into the mainstream of the WTO states that "the WTO moves beyond the sterile polarities of the past, by establishing agreements which cover the liberalization of trade in information technology products, telecommunications services and agriculture, for example, thereby, opening exciting opportunities for small and medium-sized enterprises".<sup>173</sup> Such opportunities could also suggest many more job offerings in this field. The abundance of internet cafés in the three case study countries, for instance, cannot go unnoticed. Through trade in services, internet facilities are in the advent of the WTO, a privilege enjoyed by many countries including the three case study countries for this thesis. Contrary to the past, these facilities, which are provided by the internet cafés and other telecommunication centres, in addition to helping and educating the public, also create many jobs for people, that is, those who operate these mechanisms.



Here, free trade leads to job creation. The EU provides that the establishment of a Single Market and trade liberalisation led to the creation of about 300,000 to 900,000 jobs.<sup>174</sup> In the same vein, the realisation of the single market ideal under the AU and NEPAD, could create more jobs for citizens of Ghana, Côte d'Ivoire and South Africa, as well as others within the continent, as trade becomes more liberalized in many sectors and tariffs removed, in intra-African trade.<sup>175</sup>

When the Johannesburg based Fry's metals company imports lead scrap from certain African countries, the process of refining this product for the manufacture of car batteries does create jobs.<sup>176</sup>

Similarly, refining imported crude petroleum and sulphur *inter-alia*, by La Société Ivoirienne de Raffinage in Abidjan, has indeed created jobs in many fields. These fields range from Chemical Engineering, Computer and Electricity Mechanics, to Piping. In this sense, this company and its free trade principles could be seen as having contributed at least, in part to resolving the problem of unemployment in Côte d'Ivoire.<sup>177</sup>

#### 2.6.2 (c) Increased Bargaining Power-LDC Perspectives

Through the participation in a liberalised international trading regime, countries, especially, developing ones, for example, are gradually gaining confidence and enjoying more bargaining power as they now have a choice when it comes to international issues. The fact that LDCs have now been actively involved in trading negotiations indicates that developing countries' contribution to the Uruguay Round has been a vital one, reflecting the importance of the multilateral trading system in the creation and maintenance of opportunities for sustainable development, Peter Sutherland, former GATT Director-General, concedes.<sup>178</sup> However, if issues such as developed countries' subsidies in world agricultural trade for instance persist as discussed earlier in this Chapter, this advantage of free trade may not even be derived in reality.

Therefore, through NEPAD for example which includes the opinions of African civil society, Africa's populace and leaders at large,<sup>179</sup> this continent could derive this benefit and

become adequately endowed with a stronger foothold to negotiate international treaties, be it in the field of trade, environment or other. This kind of strong footing could further enhance the effective regulation of illegal toxic trade issues in Africa.

#### 2.6.2 (d) Regulation of Disputes

Through trade liberalisation, at least under the WTO, there is a more efficient system of regulating trade disputes and avoiding the pre-World War Two kind of situation. Since the establishment of the GATT and WTO, many cases have been handled and settled constructively within their Dispute Settlement Bodies. Though GATT Dispute Settlement was not as organised as that of the WTO, there is now a significant improvement under the WTO. The establishment of a Trade and Policy Review Mechanism to review trade policies of countries also ensures compliance with WTO rules, in countries' trade practices. This ultimately leads to economic security between the world's nations, prediction and ensures uniformity.

Within NEPAD and the AU, the stronger position gained in free trade partnerships could be seen as an opportunity for the three case study countries and others within the continent to press for dispute resolution or alternative measures at the regional or international level when illicit toxic waste trade practices occur. What is needed in this regard is a strong dispute settlement mechanism, at regional level, and also, an International Dispute Settlement Mechanism, as part of the Legal Regime of UNEP, comprising WTO members as well. This could ensure fair rulings, which strike a fine balance between trade and environmental issues. Hence, the proposed dispute settlement mechanisms could work in close collaboration with the WTO's Committee on Trade and Environment when ruling on various disputes.<sup>180</sup>

## 2.7 The Impact of Free Trade on the Environment: Developing Countries' Perspectives

*"If we do nothing to change our current indiscriminate patterns of development, we will compromise the long-term security of the Earth and its people".*<sup>181</sup>

Since this thesis deals with the trade and environment debate, a review of the effects of free trade particularly in relation to the environment, is made at this point when market liberalism has just been discussed in detail. This analysis, when viewed against that in the next chapter, especially Chapter 3.5 which deals with the effects of international environmental law on trade within the context of the legal regulation of hazardous waste trade, could to a large extent, be seen as providing a foundation and tying in with discussions in Chapter 4. As demonstrated in this chapter, trade can greatly affect environmental quality through influencing the rates and regional variations in growth across the global economy and the location of natural resource use. If carefully implemented, it can also help to raise incomes, encourage more efficient utilisation of resources and spread higher environmental standards and cleaner technologies. The challenge now is to tackle the environmentally unsustainable trade practices and take action to internalise environmental costs into market prices, so as to remove the adverse impacts which unfettered trade could have on the environment.

### 2.7.1 Benefits

#### 2.7.1 (a) Increased Expenditure to Resolve Environmental Problems

Amongst the divergent opinions concerning the effects of market liberalism on the quality of natural environment, some economists for instance, hold that expanding trade is a source of increased wealth and diffusion of technology, both of which enhance society's ability to protect and upgrade their environments. Here, the viewpoint is that, since trade liberalisation leads to the scope and scale of national economic activity, there will be increases in per capita income. The main idea here is that nations adhere to sustainable patterns of production processes and trading practices. Through this, when income is generated, it would then not be used for cleaning up the harmful environmental effects of trade, but other environmental problems. This is because it has been estimated that greening such activities is much less costly than having to clean up the environmental impacts of harmful trading patterns, such as pollution.

For instance, it has been estimated that with the establishment of the WTO, the financial gains to be derived from this organization by the year 2005 should stand at approximately \$235 billion (US).<sup>182</sup> Of these figures, developed and developing countries alike have their share, as indicated in 2.6.1 (a) above.<sup>183</sup> In chapters 261(c) and 262 (a), the benefits of free trade were seen to include financial gains. According to the Ghana Standards Board, some Ghanaian farmers have been trained to produce pineapples, okra, mangoes and other agricultural products within the horticultural sector, without the use of any hazardous pesticides. Upon exporting these products to the EU, a considerable degree of income is derived for this country and this becomes a success story for this country in the agricultural sector. Consequently, in 1998, the UNCTAD indicated in its report that Ghana's export earnings in the horticultural sector, increased from \$2.5 million (US) in 1989 to \$20.7 million (US) in 1996.<sup>184</sup> Ivorian coffee exports have also been recommended for their high environmental quality. As a result of these environmentally friendly standards which are incorporated into manufacturing these products, trading in these products with UK markets, for example, have generated considerable degrees of income for this country.<sup>185</sup>

As far as toxic waste is concerned, this is undoubtedly a financially lucrative item in trade, in a country and across territorial boundaries. According to a report by the US Chamber of Commerce, in 1992, US exports to the top US trading partners were estimated at \$ 4,314,441,237.<sup>186</sup> The series of proposals in Chapter 5.4 for collecting, recycling and exporting waste are also important in this sense. A proposal by the Battery Terminal Company in Cape Town, supported by the South African government, to collect batteries from electrical appliances for recycling and resale to other African countries, could gain money for this country. Ghana's hitherto anticipated Waste Stock Exchange project and Côte d'Ivoire's used and crude oil refinery could all be a source of employment and financial resource.

Kim Peters' example of the waste recycling practices of some Kenyan communities, could also be cited as another instance which could be borrowed for the three case study countries in this thesis, to showcase and also emulate the fact that trade in waste does indeed generate income. The women in some Kenyan communities collect and recycle household waste, thereby fabricating it into compost. This compost is sold as fertilizer to farming

communities. Through this, these women, especially in the rural areas, find jobs and make money.<sup>187</sup> The UNDP in Zambia also has similar projects.<sup>188</sup> In Egypt, the so-called low class Zabaleen community, while recycling many forms of household wastes such as plastics, rags, towels and carpets, are able to derive some profit and create employment.<sup>189</sup> With the appropriate governmental support, these recycled products can then be sold to both local and foreign companies in neighbouring African countries. This should be facilitated in the advent of NEPAD.

If such practices are borrowed and bent to suit the cases of Ghana for instance, which encounters gross problems of unemployment and household waste disposal, *inter alia*, this could possibly help, at least in part, to resolve these problems. Such practices could be also advocated for South Africa and Côte d'Ivoire. With this kind of situation, one moves from managing waste to actually trading in them. In these third world countries, certain communities such as Nima in Accra, Ghana; Soweto and Hillbrow in Johannesburg, South Africa, and parts of Adjamé and Blokosso in Abidjan, Côte d'Ivoire, which face gross problems of haphazard household waste dumping and consequent environmental problems, could actually benefit from this proposal.<sup>190</sup> In this case, projects such as EJNF's Soweto Mountain of Hope, which actually encouraged the local Soweto community, including school kids, to recycle and manage waste could possibly be re-visited.<sup>191</sup> The emphasis here is to manage such forms of waste and then, trade in them again, even across borders.

Some crucial recommendations could be made for these projects to become feasible. For instance, there is the dire need for governmental support and the use of consultants to also train these people, so that such trading practices are uncompromisingly effected with adherence to the requisite international environmental standards and guidelines. It gets to a point when such recycled products could also be traded across borders, starting on a sub-regional basis and thence, on a regional basis. Sophisticated equipment such as gloves should be encouraged. In addition to the environmentally sound guidelines, Environmental Impact Assessments should also be conducted for such projects, by the relevant consultants, especially. This conforms to Ward's recommendation for a reorientation of trade policies to include EIAs, so that trade leads to sustainable development and not environmental disasters.<sup>192</sup>

Then, through such projects and practices, one could claim that free trade in these wastes necessarily results in a scenario wherein income is generated, employment created, the surrounding environment made clean, poverty alleviated and above everything else, the goal of sustainable development arrived at. The contrary of such situations is what needs to be avoided. For instance, when economic considerations became the sole determining factor which motivated certain businessmen and African leaders to accept PCBs and other highly toxic substances from the first world into the third world, the environmental consequences which occurred far outweighed the income which such trade earned, creating the problem of externality.<sup>193</sup>

To effectively regulate toxic waste trade, investing in recycling and trading in a sustainable manner would be preferable to piling up all forms waste and incurring expenses for its disposal. Spearheaded by the Red Cross hospital in Cape Town, South Africa has begun recycling its medical waste for composting,<sup>194</sup> thereby arriving at these aims, to a certain extent. Less forms of these wastes could also be recycled and traded across South African borders. Hospitals in the two other case study countries could also follow the example set by Red Cross in their approach to medical waste, in this sense.<sup>195</sup>

These all go to demonstrate that what is needed is sustainable free trade, as opposed to unsustainable trade, or autarky. With a tremendous boost in economic activity which is facilitated by increased market access, especially for developing ones, a rise in per capita income could provide the former with more resources to contain environmental damage. Furthermore, problems such as the financing of pollution control, remedial clean-up and the solving of environmental degradation and the other listed environmental problems, which are already faced by developing countries, could be effectively resolved.

Compounded with this is the fact that such projects, when conducted in a sustainable manner, lead to the transfer of environmentally friendly technology into the three case study countries. This holds true within the context of toxic waste trade because it gets to a stage when such recycling activities are carried out on a large scale. This would necessitate technologically advanced equipment to enhance such operations. Therefore, in this sense,

free trade could be seen as leading to the transfer of environmentally beneficial technology.<sup>196</sup>

#### 2.7.1 (b) Consumer Choice

It has also been suggested that as economic growth increases as a result of trade liberalisation, so does public demand for, and capacity to afford, better environmental protection. Here, the idea is that through trade, consumers are able to make environmentally beneficial choices, as free trade enables many choices to be made from a wide range of products. Under free trade, South Africa has abandoned the use of Benzene Hexachloride, a pesticide which was previously utilised in locusts control. In a world rife with competition and innovation under free trade, a more worthy substitute has been found, namely, Synthetic Pyrethroids. Likewise, dieldrin imports have been terminated for Chlorpyrifos, for termite control. Without the choice factor which free trade could permit, dieldrin, which constitutes one of the Organo-Chlorides and accumulates in the fat of wildlife and humans, would have been the sole product for South Africa in its termite control, with no other alternative. In the same vein, Aldrin has also been replaced by Chlorpyrifos for the control of sub-terrain termites.<sup>197</sup> Through free trade, Ghana can prohibit the illegal/legal entry of PCBs, which are used in the manufacture of hair pomade and skin bleaching cream amidst certain parts of this country,<sup>198</sup> *inter-alia*, for more environmentally friendly products in its market as far as such products are concerned.

Free trade also enables the three case study countries and others within the continent to depart from the importation and use of leaded gasoline and petrol to the importation/exportation and use of unleaded gasoline and petrol. These are gradually being replaced by the unleaded gasoline and unleaded petrol in these countries. Here, UNEP's Dakar Declaration to Phase Out the use of leaded gasoline in Sub-Saharan Africa (March 2002)<sup>199</sup> enables these countries to make more environmentally friendly choices of goods than what they previously purchased. So does UNEP's Voluntary seven to eight year initiative on the switch to unleaded petrol in Africa, through its WSSD Declaration (September 2002).<sup>200</sup> Ghana, Côte d'Ivoire and South Africa are in the process of drawing up action plans to phase out the importation and use of leaded gasoline and petrol by 2005-

2006, in order to benefit from better choices of more environmentally-friendly gasoline and petrol, under free trade.

The Africa Stockpiles Programme could also be cited to illustrate the environmentally-beneficial choices which free trade grants to the world's populace. This Programme is an inter-agency initiative by the UNEP, AU, FAO, UNDP, World Bank, CropLife International, Pesticide Action Network (UK), FAO, UN Economic Commission for Africa, UN Industrial Development Organization, the World Wildlife Fund and the African Development Bank. Its main objective is to remove all current stockpiles of obsolete pesticides from Africa and return them to Europe, from where they were originally imported, for destruction. Already, the initiative has received \$25 million (US) from the Global Environmental Facility for its implementation which requires approximately \$250 million (US), including the institutionalization of a prevention mechanism at the level of every participating country. The geographic coverage of the programme is all fifty three African countries, including the three case study countries for this thesis. It was implemented in 2002.<sup>201</sup> Through free trade, such a programme is possible because the three case study countries and the remaining African countries do not have to adhere to using environmentally harmful pesticides. They have the choice to purchase harmless pesticides and do not have to be confined to those which are obsolete, owing to the choice factor which results from free trade.

Following the Boston, San Francisco and New Hampshire legislatures, the Maine legislature contemplates abandoning the use of mercury in thermometers and fluorescent tubes.<sup>202</sup> Free trade enables such beneficial choices to be made. Hence, in addition to being safe for use in the US, when these thermometers are exported, they will not contaminate foreign territory as well. Free trade enables such beneficial choices to be made. The three case study countries could learn lessons from this. Ultimately, even though these countries need technological advancement, free trade also offers choice and this means that, obsolete computers, harmful television sets and other dangerous electrical equipment, for instance, must be avoided<sup>203</sup> and more environmentally friendly equipment imported and exported in free trade. Technological transfer then must not be necessarily destructive in environmental terms, but environmentally advantageous.



Furthermore, regarding the effects of trade on the environment, the imports of low sulphur coal could lead many citizens of this world to abandon the imports and use of polluting high-sulphur coal. Here, countries could economise on resource use, thereby conserving their natural resources, by trading in recycled inputs. As indicated in Chapter 5.3.1(b)(ii), recycling rubbish can yield methane gas which is in turn utilised in gas stoves for domestic cooking. In many African countries including South Africa where the use of coal, firewood and indiscriminate patterns of dumping household waste are rife among sectors of the populace,<sup>204</sup> this proposal here offers these households much better choice and could lead these people to terminate these harmful practices. All these examples are made possible because of free trade, which enables more environmentally sound choices to be made and even sought after. This is possible in a competitive and fierce international economic order, characterised by innovation and competition.

#### 2.7.1 (c) Amelioration of General Environmental and Living Conditions

According to a World Bank study, when national per capita income passes \$2000:00 (US), there is a steady decline in the percentage of citizens in developing countries who lack clean water and proper sanitation.<sup>205</sup> Furthermore, it has been revealed through a 1991 study by Grossman and Grueger of Princeton University that on the contrary, as per capita income exceeds \$5000 (US), environmental protection increases as part of general welfare gains associated with development.<sup>206</sup> For countries such as South Africa, Ghana and Côte d'Ivoire where it is claimed that large sectors of its population live in conditions of abject poverty, free trade could be useful from this perspective, since this could lead to an improvement in the lifestyle of these impoverished people. Some of the advantageous benefits of trade on the environment, as discussed in 2.7.1(a) and 2.7.1(b), are now re-assessed to appreciate more clearly, how this improves general environmental conditions in the lifestyle of people in the world and the three case study countries for that matter.

In Chapter 2.7.1 (a), the market accessibility of Ghana and Côte d'Ivoire, for instance, to the EU, was greater in terms of agricultural trade, when these products were grown without hazardous pesticides. These pesticides are imported by Ghana from Europe. The main idea here is that when farmers adhered to sustainable trade patterns, this also enabled them to

incur more profits in trade. In this sub-chapter, it was also seen that once the necessary trade EIAs are conducted using Ward's proposal, as well as the international waste guidelines of UNEP and WHO, with the requisite training from governmental departments, and adequate governmental support and monitoring, household waste for example, could also be carefully managed, recycled and traded in, within national territories and beyond the boundaries of these three case study countries. The Soweto Mountain of Hope Project and Ghana's household waste in Nima, included the many initiatives which were discussed. Clearly, having to physically get rid of such waste, sort them out, recycle them, remanufacture compost or other goods from them and sale locally and across boundaries, then, cleans the environment. This proposal creates employment and fetches income for many people in these local communities who happen to be jobless. Poverty-alleviation, environmental degradation and sustainable development are thereby tackled at grass roots level, using free trade as a tool to attain these objectives. With these, people's lifestyles clearly improve in the environmental sense.

Then again, the fact that consumers have wide options to depart from imported obsolete choices, for more environmentally beneficial chemicals, under internationally timely schemes such as the Africa Stockpiles Programme, the UNEP Dakar Declaration on the Phase-Out of Leaded Gasoline (2002) and the WSSD Declaration on the Phase-Out of Leaded Petrol (2002), which also translate to the municipal level, also suggests a great amelioration in the general environmental and living conditions of the individual. These are all facilitated, if not made possible by free trade. The discussions in Chapters 2.7.1(a), 2.7.1(b) and 2.7.1(c) all go to demonstrate that effectively regulating free trade in toxic waste and imposing protectionist regulations to attain environmental or other rightful goals could result in sustainable development. This is through generating income, safeguarding ecological balance and improving social standards. However, liberalising trade without any clearly defined limits could be evidently harmful. This claim of this thesis could also be validated from the discussions and examples in Chapter 2.7.2 below.

### 2.7.2 Constraints

#### 2.7.2 (a) Deterioration of Environmental Standards

*There was once an individual, Mr. Oppong who lived in the Ghanaian town of Konoŋgo. He worked for several years as an Engineer in a battery factory which imported lead for battery recycling from Nigeria. This business generated a considerable amount of income. After some years of work experience, Mr. Oppong decided to operate his own private, single-handed battery recycling business in his backyard. Here, he imported lead for this purpose from some business counterparts in Togo and Nigeria. As he was well-experienced in his field, he did not seek expert advice from the Ghana Ministry of Environment, Science and Technology. The business was run smoothly, with much income being accrued, interests abounding...Mr. Oppong's children played gleefully with some of the battery products on a daily basis and all was well. Lo and behold, one day, the children fell prey to all manner of malignant ailments manifested in the forms of physical paralysis, nervous breakdown, psychological and nervous disorder...They were taken to consult the medical officer, who after a series of medical examinations, confirmed that the impairment in the health conditions of the children was due to the toxic emissions which emanated from the lead contained in the car batteries...*

Trade liberalisation could also lead to the decline of environmental standards. In Mr. Oppong's case above, could the situation have been different, supposing that in spite of the years of his work experience, the necessary advice and guidance had been sought from the relevant governmental ministry and consultants, who would have utilised the adequate UNEP and WHO environmental guidelines? It seems that once these steps had been adhered to, the children above may not have suffered such detrimental consequences of production processes of the battery recycling industry. Hence, this sub-chapter emphasises that unregulated trade can adversely impact the health of human beings and the environment as well. Against this background, Ward's recommendation for a reorientation of trade policies to include EIAs come into play.<sup>207</sup>

PCBs and plutonium contaminate soil and marine life, in addition to deteriorating human health.<sup>208</sup> Toxins, dioxins and azo dyes cause cancer in human beings as well as plant and animal life. Acidic wastes, usually, by-products of nation's industrial activities, affect organisms in the soil and cause soil to lose its fertility. Lead and mercury cause mental disorders and other health deficiencies in human beings.<sup>209</sup> Asbestos can cause cancer to human health, as evident from the *Carcinogenic Asbestos Case*.<sup>210</sup> And yet, each of these

substances serve a useful tool for trading purposes. For example, asbestos are used in constructing roofing sheets of houses and PCBs are utilised in producing transformers and other electrical appliances.

To better comprehend the harmful effects which trade can have on the environment, it is also necessary to examine some of the instances of toxic waste importation cited in Chapter 5.4, as well as findings of the research project of this thesis, on the empirical explanations involving the exact manner in which such substances affect the human and environmental health of a country. The Thor Chemicals case could serve as a fine example at this point. Here, mercuric emissions from the Thor Chemicals processing plant in Kwa-Zulu Natal poisoned Durban's source of drinking water, at the Inanda Dam, as a result of excessive release and consequent pollution into the Umngweni River. The rivers within the vicinity of the Thor Chemicals Plant were also polluted to the extent that mercury levels were 8,200 times higher than the acceptable level in the United States.<sup>211</sup>

Atmospheric pollution also resulted from inordinately excessive quantities of mercuric release. Such environmental hazards can certainly cause death amongst human beings. And such deaths really did occur, as two workers died of mercuric poisoning and there were alarming numbers of loss of lives, amid rather large sectors of Natal's populace.<sup>212</sup> In England, workers' urine had been contaminated, from reprocessing mercury in Thor's affiliate company, based there.<sup>213</sup> Many people in Natal suffered from health impairment and poisoning. From all these points, the irrefutable conclusion is that mercury, in addition to other things, causes serious health and environmental hazards, and must be handled with due caution and diligence, if not avoided altogether.

Furthermore, in this country, many mines and power stations in the Eastern Transvaal region have been said to generate a lot of industrial waste such as carbon monoxide, as by-products of their manufacturing processes. Aggravated by this is the fact that many factories are located within close proximity to each other, for instance, in the Merebank and Natal region. This implies that massive volumes of such toxic waste are produced overall, and then pollute the atmosphere, ecological life as well as human health on a rather large scale.<sup>214</sup> Mining in asbestos within the Mpumalanga region has been said to cause atmospheric

pollution, a great deal of health impairments to the workers in these mines, as well as the surrounding populace. However, no strict liability regime seems to exist for proving these cases, to assist these workers who suffer from asbestosis and other resultant lung-related problems.<sup>215</sup>

Furthermore, in Ghana, indiscriminate mining for exportation purposes and dumping of mining waste in Abekwasi within the Tarkwa region, without adequate concerns for the environment, led to marine and atmospheric pollution in this town. Consequently, there were a good number of strikes from the surrounding populace.<sup>216</sup>

From the Sandoz Spill, Seveso and Love Canal Tragedies discussed in the introductory chapter, the way in which toxic waste affects environmental and human health was evident. In Sandoz, groundwater resources and the fishing industry were incidents of pollution which occurred within the Rhine River, as well as other rivers and resources, situate not only within the vicinity of the Swiss Sandoz Company in Basel, Switzerland, but also in France, Germany and the Netherlands.<sup>217</sup> In Seveso, atmospheric, water and land pollution resulted from toxic emissions in the Italian city of Seveso.<sup>218</sup> In Love Canal, dioxin and other toxic emissions which had begun three decades in retrospect, that is, 1947, started having dangerous impacts including the pollution of rivers and adverse impacts on the health of human beings, through toxic eruptions in the basement of their homes as from 1977.<sup>219</sup> In the case of Cheliabinsk and Orekhovo-Zuevo, toxic waste caused fires and health impairments amidst the population in Russia.<sup>220</sup>

Regarding the harmful effects of trade on the environment, it has been said that the Asia Pacific Region, for instance, which has witnessed a tremendous boom in its economy in the last decade, has also been subject to prominent environmental problems due to trade liberalisation. Thus, Robert Repetto states: "Rapid industrial growth in the so-called 'Asian Tigers' has led to a significant worsening of environmental quality, from a reported doubling of hazardous waste generation in Thailand, to shocking jumps in respiratory diseases in some sections of Indonesia, due to urban population".<sup>221</sup>

From these discussions, it is obvious that illicit importation or exportation of toxic waste, apart from causing health impairments in human beings, leads to all sorts of environmental problems such as pollution and loss of biodiversity.

In the same vein, trading in household, medical and other forms of waste, can adversely impact the environment. The existence of massive volumes of household waste in many communities, especially, local communities alone, give room for worrying concerns. In parts of Bingerville, Adjamé, Blokosso and Anono in Abidjan, in Korlegono in Accra and in Guguletu, in Cape Town for example, piles of these forms of waste are indiscriminately dumped within these communities. Problems such as the lack of adequate equipment to treat, manage and recycle these forms of waste also worsen these trends.<sup>222</sup> If this is not addressed, proposals for the local communities to manage and recycle these forms of waste and even engage in intra-African trade in some of these recycled products<sup>223</sup> may result in nothing, but more environmental catastrophes. This will then compound those environmental problems which the current improper disposal of certain forms of waste cause.

However, in the absence of a diversified economic structure, these countries whose economic status in the global market is already questionable continue to depend on the exports of such products from time to time. With the increasing IMF and World Bank debts as well as debts to the developed countries, these problems are even compounded. To this, the answer lies not in abandoning trade altogether, but finding sustainable trade patterns, worthy trade substitutes in free trade and banning the imports and exports of extremely dangerous substances, for which there are no less toxic substitutes. From this perspective, one would like to differ from Retallack in Mander and Goldsmith, where he advocates for "local production for local consumption", that is, autarky in the world economic order.<sup>224</sup>

Therefore, in view of such resultant environmental trends which trade could create, the companies such as Tema Oil Refinery, Tema, and Ashanti Gold Fields, Ghana, Fry's Metals in Johannesburg, and La Société Ivoirienne de Raffinerie in Abidjan, for example, have not abstained totally from toxic waste reprocessing. They have actually ensured that the necessary environmental standards are incorporated into all these activities. In cases where

alternatives are found, this is encouraged. For instance, car batteries are a much needed commodity in African countries. Instead of using unsustainable environmental methods or abandoning importing lead scrap for producing batteries altogether, Fry's metals ensures that the lead scrape is imported in an environmentally sound manner and also recycled with strict observance to internationally environmental standards.<sup>225</sup> Similarly, the proposed recycling projects for plastic ware, household waste and other forms of waste all need to include international standards, in conformity with UNEP Guidelines for instance.<sup>226</sup>

In the light of the adverse affects which trading activity could have on the quality of the environment, these projects all necessitate EIAs and other international guidelines, as indicated above.<sup>227</sup> Through this system, the potential environmental effects of trading and developmental activity, are conducted, based on scientific evidence. It is therefore necessary to incorporate strict environmental principles into trade and developmental activity, and adhere to the precautionary/preventive principle,<sup>228</sup> lest development results in environmental degradation. This, as already indicated, is better than departing from free trade altogether. The other environmental standards such as ecolabelling schemes, which are incorporated into trading regimes and their impacts thereof, will be discussed at length in the ensuing chapter, with a view to analysing the effects of environmental concerns on free trade. These EIAs and preventive principles could be seen as ensuring foresight, by preventing resultant environmental disasters from toxic waste imports and exports.

From the above, trade liberalisation could adversely impact the environment through pollution, decline in health and public standards and also, environmental dilapidation of developing countries. From this perspective, it is not in all cases that the concept of a liberal free market strategy implies sound environmental quality.

## **2.8 Conclusion**

This chapter clearly expounds on the reasons why every country, including the three case study countries, needs to pursue free trade policies. Free trade may be of benefit to a nation if promoted cautiously and with certain considerations. Protectionism may also sometimes be resorted to, for environmental or other genuine reasons, as indicated above.

The gains which free trade could yield can be ascertained here. Trade liberalisation could enable nations to resolve problems of unemployment, make increases in per capita income, attract foreign investment and promote economic and sustainable development, all of which enhance growth. The positive benefits which accrue from free trade are seen not just from the series of theoretical analyses which are provided in this chapter, but also, from the practical examples which have been drawn from reality. The WTO, FTA and mechanisms such as FTZs, are forms of free trade regimes through which these gains are realised. Proposals for waste recycling and trade among local communities in the three case study countries, represent a departure from hazardous waste management to hazardous waste trade. These will generate income, create employment and establish a cleaner environment. The degree to which countries, especially developing ones, may protect their local markets from foreign competition, so as to safeguard the welfare of their environment, support their infant industries from collapsing or attain other lawful objectives, has also been discussed.

However, while liberalising the flow of goods and services, international trade policy has departed from the single-minded approach to the pursuit of free trade as at the inception of the GATT 1947 towards a more dualistic approach of the attainment of sustainable free trade. This is manifested in the goals and workings of the WTO Committee on Trade and Environment, the preambular clause to the WTO, the New Agreement on Technical Barriers to Trade, the Agreement on Agriculture and cases such as the WTO *Carcinogenic Asbestos* Cases discussed above. This is particularly important as it seeks to ensure that nations do not violate their environmental obligations under a thoroughly liberalised free trade regime, using the WTO as an escape route.

With a view to reinforcing its commitment to sustainable development and ensuring that there are clearer guidelines for indicating when this exception may be invoked to justify a departure from free trade ideals, it is necessary to explicitly incorporate imperative environmental concerns, as an amendment to WTO Article XX exceptions.

Furthermore, the main idea here is also to ensure that trade does not result in environmental perils, lest the resultant financial benefits of free trade must then be utilised in the clean-up of environmental consequences of such trade. Hence, while advocating the establishment of



regional waste recycling projects for the three case study countries, these projects must be implemented in an environmentally sustainable manner, to avoid the *Thor Chemicals* scenario, for example. In this respect, free trade could then generate income for attaining other developmental goals and other environmental objectives in a nation.

Free trade could also result in specialisation whereby different countries produce and export the goods which they are naturally endowed and most skilled in manufacturing. Under this concept which is of vital significance to this thesis, Ghana could for example, specialise in the collection, importation, treatment and recycle of used electrical appliances for export to other African countries, South Africa embark on a similar project for car batteries and Côte d'Ivoire for such a project regarding crude and used petroleum oil. Here, income and employment are generated within the respective countries, while ensuring that no one's territory is also used as a hazardous waste dumping ground, within the advent of NEPAD.

The usefulness of promoting regional trading agreements under free trade is also important. Since NEPAD seeks to enhance regional integration and SADC as well as ECOWAS seek to promote sub-regional integration, these instruments could also enable these countries to ensure a uniform definition of hazardous waste which avoids discrepancies in this regard, thereby enabling a smooth flow of the importation and exportation of some of these substances in this continent. Once this is effectively accomplished as a first step, these free trading arrangements could possibly enable these countries and other African countries for that matter, to fulfill their obligations at international level, under a convention such as Rotterdam for instance. Within this order of uniformity, NEPAD can also help African countries to collaboratively enhance the objectives of the Bamako Convention. This then shows how free trade, in the form of FTAs, can positively impact environmental law.

Another advantageous consequence which free trade could have is that it leads to innovation within a global market which is rife with competition. Through innovation, obsolete pesticides can be abandoned in Africa and the three case study countries for better, environmentally useful products. For instance, under the UNEP Dakar Declaration on the phase-out of leaded gasoline and the African Stockpiles Programme which aims at exporting all imported obsolete substances out of the continent, the utilisation of toxic and obsolete

chemicals could be abandoned for the use of more environmentally-friendly substances in these three countries. In this sense, free trade could also be perceived to ameliorate the quality of environmental life amidst large sectors of the populace.

To facilitate the free flow of goods and services from one country into another within this continent, practical recommendations for African countries include the need for a more effective intra-regional railway, road and transportation/communication system within the continent as this would facilitate both regional and sub-regional trade. The prevalence of political stability is also necessary for the advancement of free trade and could be attained through NEPAD's Conflict Prevention Mechanism. It is also necessary to hold border officials accountable for bribery practices which prevent the free movement of persons from one border to another. The inclusion of environmental considerations and stipulations on toxic waste into each of the regimes of the above-mentioned mechanisms could also enhance free trade in toxic waste.

The establishment of a thorough Dispute Settlement Mechanism on trade and environmental issues including toxic waste trade, as part of the Legal Regime of the UNEP, and on a regional level, the NEPAD instrument, has been advocated. This is highlighted in the next chapter.

This chapter has discussed free trade and its possible benefits, while identifying contemporary trends in this area of law. The next chapter now explores the legal protection of the environment as it relates to the regulation of toxic waste trade in the international context and how this affects the three case study countries.

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<sup>1</sup> Smith, A *Wealth of Nations*, 1776; produced in Pugel, AP and Lindert PH *International Economics* The McGraw-Hill Higher Education (2000), at 32.

<sup>2</sup> On the Great Depression, see for example, Aldcroft, DH *The Interwar Economy: Britain, 1919-1939* London: B.T. Ashford (1970); Bernanke, BS *Essays on the Great Depression* Princeton University Press (2000); Eichengreen, B et al "Exchange Rates and Economic Recovery in the 1930s", *JEH*, XLV (1985), 925-946; Eichengreen, B et al 'Interwar Unemployment in International Perspective : An Overview', in Eichengreen and Hatton *Interwar Employment in International Perspective* Dordrecht, Germany and Boston, MA: Martinus-Nijhoff (1988); Harberler, G "The World Economy, Money, and the Great Depression", *Washington DC: American Enterprise Institute* (1976); Kindleberger, CP *The World in Depression: 1929-1939* Berkeley, California, University of California Press (1973); League of Nations *International Trade Statistics 1937* Geneva, Switzerland (1938); Margo, RA 'The Macroeconomics of Depression Unemployment', *JEH* 51 (June 1991), 333-341; Rorner, CD 'The

Great Crash and the Onset of the Great Depression', Working Paper 2639, National Bureau of Economic Research (June 1988); Schumpeter, JA 'The Decade of the Twenties', *AER* 36(1): 1-10 (1946); Temin, P *Lessons from the Great Depression* Cambridge MA:MIT Press (1989). On the Second World War, see for instance, Bell, PMH *The Origins of the Second World War in Europe (Origins of Modern Wars)* Longman 1997; Churchill, WS *The Second World War* Pimlico (2002); Mircheva, H *History of International Relations After the Second World War*. Lectures Sofia (1991); Townsend, P *Duel of Eagles* Sterling Publishing Company Incorporated (May 2001); Holmes, R *Battlefields of the Second World War* BBC Consumer Publishing (Books) 2001. At the onset of discussions in this Chapter, it must be born in mind that a clear distinction exists between tariffs and non-tariff barriers. The former are measures including product standards which are implemented by governments with a view to reducing the quantity of goods to a desired level. Tariffs on the other hand impact on the prices of imports as they are taxes levied on imported goods. These constitute trade barriers. For further information, see for example, Export Department, "Tariff Barriers", available at <http://www.export911.com/e911/export/tariff.htm> and Export Department, "Non Tariff Barriers", available at <http://www.export911.com/e911/export/non-Tarif.htm>.

<sup>3</sup> Pugel and Lindert, "Mercantilism: Older than Smith-and Alive Today" (2000), *Supra* 1, at 33.

<sup>4</sup> Pugel and Lindert (2000), *Ibid*. On mercantilism, see also, Yarbrough, BV and Yarbrough RM *The World Economy Trade and Finance* A Division of Harcourt College Publishers (1999), 26-27 and 316-317.

<sup>5</sup> Hudec, R *The GATT Legal System and World Trade Diplomacy* (1975), 1-2; See also, Bhagwati, J *Protectionism* Cambridge, Mass: MIT Press (1988), 20-42.

<sup>6</sup> Hudec, (1975), *Ibid*, 1-2.

<sup>7</sup> Hudec (1975), *Ibid*.

<sup>8</sup> As a matter of fact, by 1945, this Act resulted in 32 reciprocal trade agreements, some promoting free trade and others protecting the US economy from foreign competition. Based on the renewal of this Act in 1945, the US gained acceptance to the GATT. See Jackson et al *Legal Problems of International Economic Relations, Cases, Materials and Text on the National and International Regulation of Transnational Economic Relations* St Paul, Minn: West Pub. Co, (1995), at 139-140. Magee and Young note that the democratic governments of this country have generally adhered to the free market system while the republican governments have enacted protectionist trade laws. For instance, some of the free trade acts including the Trade Expansion Act, enacted under President Kennedy (1962-1970) a democrat, led to more equitable trade. The Burke-Harte Bill, implemented in 1970 under President Nixon's Republican government, was highly protectionist. The Trade Act, passed in 1979, under President Carter, a democrat, was highly liberalised, see Magee, SP and Young, L "Endogenous Protection in the United States, 1900-1984", in Stern, RM *US Trade Policies in a Changing World Economy* Massachusetts Institute of Technology (1987), 145-195, especially at 149. Today, there are thousands of cases at the WTO, presented by many trading partners of the US against this country, for protecting its markets against foreign competition, especially in an area such as the steel industry. This is discussed under the WTO Most Favoured Nation principle in this chapter, see fn 41 *infra*. Perhaps, the republican nature of the current government may be a reason for this and serves to confirm this view.

<sup>9</sup> Hereinafter ITO.

<sup>10</sup> Hudec (1975), *Supra* 7, 25.

<sup>11</sup> Hudec (1975), *Ibid*, 1-2.

<sup>12</sup> The United Nations is after this point, referred to as the UN. International organisation established after the Second World War, it aims to maintain international peace and security and to take collective measures for that purpose against violators of peace, to develop friendly relations among nations, based on respect for the principle of equal rights and self-determination of peoples, to achieve international co-operation in solving international problems of an economic, social, cultural and humanitarian character and to be a center for harmonizing activities of nations in the attainment of these common ends, Article 1 of UN Charter, Tunkin, GI *International Law* (1986), 196-214. For more details on the UN and its work, see also, Scheffer, DJ 'UN Engagement in Ethnic Conflicts', *International Law and Ethnic Conflict* (1998), 147-177, edited by Wippman, D ; Castel J et al, *International Law, Chiefly as Interpreted and Applied in Canada, Documentary Supplement to the Fifth Edition* (1993); Tunkin, G 'The Present Day Interstate System', *Recueil des Cours* (1989, VII), 246-259 and 'Politics, Law and Force in the Interstate System', 338-351; Rosenne, S 'UN Treaty Practice', *Académie de Droit International, Recueil des Cours*, (1954, II); Miesler, S *United Nations, The First Fifty Years* The Atlantic Monthly Press, New York (1995); Sohn, LB *Cases on United Nations Law* London, Stevens and Sons Ltd (1956); <http://www.un.org>; For some UN agencies and the specific tasks they undertake in conformity with the Organization's objectives, see

for example, <http://www.undp.org>, which discusses the work of the United Nations Development Programme in the areas of Democratic Governance, Poverty Reduction, Crisis Prevention and Recovery, Energy and Environment, Information and Communication Technology, HIV/AIDS and Recent Human Development Reports on issues such as innovative analysis. The work of the UN High Commissioner for Refugees lies in co-ordinating international action to protect refugees and resolve refugee problems worldwide, <http://www.unhcr.ch>. The UN Environment Programme (Hereinafter UNEP) provides leadership and fosters partnerships in environmental protection by inspiring, informing and informing nations and people to improve their quality of life without compromising that of future generations, <http://www.unep.org>. The United Nations Education, Scientific and Cultural Organization (Hereinafter UNESCO) seeks primarily to attain peace and security in the world by promoting collaboration among nations through education, science, culture and communication in order to further universal respect for justice, rule of law and for the human rights and fundamental freedoms which are affirmed for the people of the world, without distinction of race, sex, language and religion, according to the charter of the UN. It fulfills this task through performing functions such as advancing, transferring and sharing of knowledge and providing expertise to member states for their development policies and projects in the form of "technical co-operation" and exchange of specialized information, <http://www.unesco.org>; The UN Food for Agricultural Organization seeks to raise levels of nutrition and standards of living, to improve agricultural productivity and to better the condition of rural populations. Being the world's lead agency for agricultural, forestry, fisheries and rural development, UNFAO has since its inception, contributed significantly to poverty and hunger alleviation by promoting agricultural development, improved nutrition and the pursuit of food security, which is defined as the access of all people at all times to the food they require, in order to lead an active and healthy life, <http://www.fao.org>. See also, Glazewski, J *Environmental Law in South Africa* Butterworths (2000), 32-36 for discussions on the workings of some of these UN agencies. The tasks of some of these UN agencies and others such as UNCSD and UNCTAD, as they relate to regulating toxic waste trade, are discussed in Chapter 3.

<sup>13</sup> Hereinafter UNCTAD.

<sup>14</sup> Jackson et al (1995), Supra 8, and fn. 8 generally.

<sup>15</sup> Jackson et al (1995), Ibid, 292; Hudec (1975), Supra 11.

<sup>16</sup> Hudec (1975), Ibid.

<sup>17</sup> Hereinafter, ILO.

<sup>18</sup> Wilkinson, R 'The WTO in Crisis, Exploring the Dimensions of Institutional Inertia,' *JWT*, Volume 35 No. 3, June 2001, 401.

<sup>19</sup> Hereinafter OTC.

<sup>20</sup> Jackson et al (1995), Supra 15, 295-296; Jackson, JH "Multilateral and Bilateral Negotiating Approaches for the Conduct of US Trade Policies", at 379, in Leamer.

<sup>21</sup> Jackson et al, Ibid, 295; Hudec (1975), Supra 16; See also, Demaret, P 'The Metamorphoses of the GATT: From the Havana Charter to the World Trade Organization,' *Columbia JIL* (1995), 123-171, at 127, and Eisenberg, GS 'The GATT and the WTO Agreements: Comments on Their Legal Applicability to the Republic of South Africa', 19 *SAYIL* (1993/94), 130.

<sup>22</sup> For an analysis of the serious problems facing GATT, most of which could be traced to the "birth defects" dating from its 'troubled history' of its origins, see Jackson et al, Ibid, 293-298 and 300-301. Here, they discuss these problems, and others such as the continued existence of grandfather rights, for instance, which enabled the US to enforce legislation incompatible with the GATT; See also, Demaret (1995), Ibid, at 128 and Article 1(b) of the Provisional Application of the GATT, 30<sup>th</sup> October 1947, T.I.A.S. No. 1700, at 2041-42. However, Swacker et al discuss the ameliorations that have been made in relation to the workings of the GATT. These include the more effective dispute settlement mechanism, for example, over the years. On this, see Swacker, FW et al *World Trade Without Barriers, Comparative Dispute Resolution, Public and Private* Volume II Michie Butterworth, Charlottesville, Virginia (1996), 152-154, 292-311, 172-185.

<sup>23</sup> European Commission *The Agricultural Situation in the European Union, 1998 Report* (Report Published in Conjunction with the General Report on the Activities of the European Union) European Communities (1998), 23; Hallström, P *The GATT Panels and the Formation of International Trade Law* Stockholm, Jurisforlaget (1994), 51; Asamani, Y *The World Trade Organization and Developing Countries, with Specific Reference to South Africa* (Unpublished LLM Dissertation, University of Cape Town, January 1998), Chapter 2.1, for elucidations concerning the CAP, when discussing the historical background and development of the WTO.

<sup>24</sup> Wilkinson (2001) Supra 18, 405.

<sup>25</sup> Wilkinson (2001), *Ibid*, 405-406. On specialisation and comparative advantage, see also, Chapter 2.6.1 (a), *Infra*.

<sup>26</sup> Jackson et al (1995), *Supra* 21, at 314; Hudec, *Supra* 16.

<sup>27</sup> Demaret (1995), *Supra* 21, 127.

<sup>28</sup> [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/fact4\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact4_e.htm), at 3.

<sup>29</sup> See Demaret (1995), *Supra* 27, 128-130, where he discusses the positive attributes and deficiencies of this round. See also, Jackson et al (1995), *Supra* 26, 315-316.

<sup>30</sup> Demaret (1995), *Ibid*, 125; See also, Ministerial Declaration on the Uruguay Round, Sept. 20, 1986, GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT): B.I.S.D. 19 (33rd Supp. 1987), The Genesis of the Uruguay Round, created at Punta-del-Este on September 20<sup>th</sup>, 1986; Vernon, R 'The World Trade Organization: A New Stage in International Trade and Development,' *Havard ILJ*, Volume 36, Number 2, Spring 1995, 329-332.

<sup>31</sup> On Uruguay Round and historical development of GATT to WTO, see also, Jackson et al (1995), *Supra* 29, 147-149, 289-319, 382-383, 1118-1126; MTN/FA II, at 1-14 (Dec. 15, 1993) and 33 I.L.M. 13 (1994), for more details on the Agreement Establishing the WTO. This agreement has been entered into, among the parties thereto in their general capacity to enter into international agreements dealing with trade. All other agreements and understandings are formally among WTO Members. Decisions and Declarations are by the Ministers representing those Members in the WTO, and presumably have the status of unanimous decisions of the WTO Ministerial Conference; WTO, *Regionalism and the World Trading System* Geneva: World Trade Organization (1995); Wilkinson (2001), *Supra* 25, 397-408; WTO, *From GATT to the WTO, The Multilateral Trading System in the New Millennium* (2000); Wiener, J *Making Rules in the Uruguay Round of the GATT, A Study of International Leadership* Aldershot, New York, Dartmouth, New York University Press, Dartmouth (1995), 7-8; Demaret (1995), *Ibid*, 125-171; [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/fact4\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact4_e.htm), 'Trading into the Future: The Introduction to the WTO', *Supra* 28; Leebron, DW 'An Overview of the Uruguay Round Results,' *Columbia JIL* (1995), 11-35; Hallstrom (1994), *Supra* 23, 22-96; <http://stars.coe.fr/doc/adoc/0496/adoc/7618.htm> 12<sup>th</sup> July, 1996, 'Report on the WTO and the Implementation of the Uruguay Round'; Ward, H 'Trade and Environment in the Round and After', *JEL*, Volume 6, Number 2 (1994), 271-272 and League of Nations *International Trade Statistics 1937* (Geneva, Switzerland: 1938); Long, O *Law and its Limitations in the GATT Multilateral Trade System* London: Graham & Trotman (1987), 1-6, 24-36; Jackson, JH *World Trade and the Law of GATT: A Legal Analysis of the General Agreement on Tariffs and Trade*, Bobbs-Merrill, Virginia (1969); Jackson et al *Legal Problems of International Economic Relations, Cases, Materials and Text on the National and International Regulation of Transnational Economic Relations* St Paul, Minn: West Pub. Co. (1977); Dam, KW *The GATT Law and International Economic Organization* University of Chicago Press (1970) and Hudec (1975), *Supra* 26, 1-18, 185-289; Asamani (1998), *Supra* 23, Chapter 2.1; Swacker, FW et al *World Trade Without Barriers, The World Trade Organization and Dispute Resolution* Volume I Michie Butterworth, Charlottesville, Virginia (1995) and Williams, F "Moore to Try to Launch New Trade Round" (WTO Chief Ministerial Conference to be Called as Soon as Possible), *Financial Times*, 9 December 1999. On differences between WTO and GATT, see Vernon (1995), *Ibid*, 329-340.

<sup>32</sup> See Jackson et al (1995), *Ibid*, Chapter 6 generally, especially, at 289-291; 301-302; See also, Fraser, C 'The Final Act of the Uruguay Round, The World Trade Organization, Its Framework and Purpose, Comments: (1995)' 8 *EIPR*, 395-399, at 396.

<sup>33</sup> Jackson et al (1995), *Ibid*, at 303 to 304.

<sup>34</sup> See Article XVI:1 of the WTO Charter, discussed in Jackson et al (1995), *Ibid*, at 304, under "Continuity with the GATT"; See also, Jackson, JH "Testimony Before the Senate Finance Committee", March 23, 1994, produced in Jackson et al (1995), at 305-306. For aspects of the WTO's work under its better organised structure, see generally, [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/fact4\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact4_e.htm), 'Trading into the Future: The Introduction to the WTO', *Supra* 31. For dissenting opinions, especially, on how the WTO could still be improved upon to better enhance multilateral cooperation, see Wilkinson (2001), *Ibid*, 397-419; United Nations Economic Commission for Africa, *'Africa and the Multilateral Trading System and the World Trade Organization (WTO), Seattle and Beyond* (undated), where African perspectives on WTO trade negotiations and Agreements are provided; Jonquières, G and Williams, F (in Seattle) "WTO Accord in Sight, but Differences Persist", *Financial Times*, 4 to 5 December 1999; Clover, C (in Seattle) "US Battle to Save Trade Talks Amid Flood of Rebukes", *The Daily Telegraph*, 4 December 1999; Regnier, P 'Et Si L'Echec de Seattle Avait Été Délibérément Orchestré Par Les États-Unis?', *Économie Le Soir* du Lundi 6 Décembre 1999; Regnier, P 'Le Sommet de l'OMC Implose à Seattle', *Économie*, 6 Décembre, 1999 and Drohan, M "The WTO Conflict Moves Inside", *The C and Hail*, Saturday December 4, 1999.

<sup>35</sup> Mac Rae, DM "The Contribution of International Trade Law to the Development of International Law", *Academie de Droit International, Recueil des Cours, Collected Courses* (1996), 100.

<sup>36</sup> Jackson et al (1977), Supra 31, 32-540; Executive Branch GATT Studies, No. 9, The Most Favoured Nation Provision, 133; On evolution and development of MFN, see Jackson et al (1995), Supra 33, 440-442.

<sup>37</sup> Long (1987), Supra 31, 8-9.

<sup>38</sup> See Jackson et al (1995), Supra 36, 445; See also, WTO TRIPS (Article IV), GATS (Article II) and Agreement on Agriculture on MFN.

<sup>39</sup> Article 4(2).

<sup>40</sup> Article 3(d).

<sup>41</sup> See WTO Cases WT/DS248/R to WT/DS259/R, 11<sup>th</sup> July 2003.

<sup>42</sup> Case WT/DS3.

<sup>43</sup> GATT 1<sup>st</sup> Supp. BISD 59-62 (1953), Panel report adopted Nov. 7, 1952.

<sup>44</sup> See also, 1998 *WTO Case of USA, EU and Japan, against Indonesia's Tariff and Tax Concessions to South Korean Cars*, available at : <http://www.pathfinder.com/@RuPq...oney/latest/RB/1997Jul27/121.html>, *US v Indonesia on WTO Trade Agenda*, discussed in Asamani (1998), Supra 31, Chapter 3.2 under MFN; Jackson (1969), Supra 31, where he discusses EU's practice of the variable import levy in connection with GATT's MFN and Article I; See also, the Japan-Tariff on Import of Spruce-Pine-Fir (SPF) Dimension Lumber, GATT panel Report Adopted July 19, 1989, 36<sup>th</sup> Supp. BISD 167 (1990); Spain-Tariff Treatment of Unroasted Coffee, GATT Panel Report Adopted June 11, 1981, 28<sup>th</sup> Supp. BISD 102 (1982); Treatment by Germany of Imports of Sardines, GATT Panel Report Adopted October 31, 1952, 1<sup>st</sup> Supp. BISD 53 (1953); US-Denial of MFN treatment as to Non-Rubber Footwear from Brazil, GATT Panel Report Adopted June 19<sup>th</sup>, 1992, 39<sup>th</sup> Supp. BISD 128 (1993).

<sup>45</sup> Jackson et al (1977), Supra 36, 573, where he also refers to Dam (1970), Supra 31 *inter-alia*; Jackson et al (1995), Supra 38, 510-558; Booyesen, H *International Transactions and the International Law Merchant* Pretoria: Interlegal (1995), 87.

<sup>46</sup> Under the new WTO Agreements, national treatment extends to the GATS (Article XVII), TRIPs (Article III) and Agreement on Agriculture as well.

<sup>47</sup> Rulings of WTO Appellate Body on *French Ban of Carcinogenic Asbestos*, WT/DS 135; WT/DS 135/1 and WT/DS 135/3 (Also available at <http://www.field.org.uk/papers/tepap.htm>).

<sup>48</sup> GATT 34<sup>th</sup> Supp. BISD 136 (1988), Panel Report Adopted June 17, 1987, discussed in Jackson et al (1995) Supra 45, 534. See also, GATT doc., DS/31/R, September 29, 1994, adoption pending, discussed in Jackson et al (1995), Supra 45, 533-534, where the *EU Complaints of US Auto-Measures for Vehicles* Case is discussed. This concerned complaints brought to the GATT by the EU against the US for its auto-measures, including the Corporate Average Fuel Efficiency (CAFE) rules. It was held *inter-alia* that certain averaging formulae in the CAFE rules violated Article III:4 by treating domestic and foreign cars differently from locally produced cars, in a manner not acceptable under Article XX(g).

<sup>49</sup> *Tuna-Dolphin Case I*, (1991) ILM 1594; GATT Doc. 21/R (3 September 1991); *Tuna-Dolphin Case II*, (1994) ILM 839; See also, 39<sup>th</sup> Supp. B.I.S.D. 155 (1993).

<sup>50</sup> WT/DS58/R (1998); WT/DS58/AB/R (1998).

<sup>51</sup> See Chapter 2.4 on this case; See also, the *French Ban of Carcinogenic Asbestos* Case, Supra 47, where the WTO clearly demonstrated its commitment to trade liberalisation while promoting sustainable development, by upholding French ban on carcinogenic asbestos, as these substances cause cancer, to be highlighted in Chapter 4.4.3 *infra*.

<sup>52</sup> WT/DS 26 and WT/DS 48; See also, Mander, J and Goldsmith, E *The Case Against the Global Economy and for a Turn Toward the Local* Earthscan Publications Limited UK (2001), 181.

<sup>53</sup> Mander and Goldsmith (2001), *Ibid*, 184.

<sup>54</sup> See also, *Sri Lanka's Ban on Genetically Modified Organisms*, to be highlighted in Chapter 4.4.4 *infra* and possible implications of this WTO ruling on developing countries, Chapter 3.5.2(b) on Extraterritoriality and National Sovereignty.

<sup>55</sup> On case law national treatment, see also, US claims in 1956 that French tax violated Article III, case unexamined by GATT Panel; The GATT ruling on Brazil's discriminatory taxes against Brazil, 1949, which held that the levying of internal taxes against brandy and watch industry products were unjustifiably discriminatory, as such taxes were not applied to locally produced goods in France. Hence, such taxes went contrary to GATT Article III requirement on national treatment. See Asamani (1998), Supra 44, Chapter 3.1.2;

Under EU case law, see *Danish Bottles*, Case 302/86, 1988 ECR 4607, *Cassis de Dijon*, Case 120/78, 1979 ECR 649 and *Commission v Belgium*, Case C-2/90 (1992) ECR (July 9, 1992), concerning the circumstances under which foreign products may be refused importation, on the grounds of genuine environmental protection.

<sup>56</sup> Article XI; See also, Article XVI of the GATS, for example, which forbids quantitative restrictions in five areas, such as the number of service suppliers, the total value of transactions and the percentage of foreign capital, in spite of the possibility of registering reservations by service sector.

<sup>57</sup> Article II.

<sup>58</sup> Brownlie 287 (4<sup>th</sup> Edition, 1990), reproduced in Jackson et al (1995), Supra 48, 259.

<sup>59</sup> Henkin, L "The Mythology of Sovereignty", ASIL Newsletter (March-May 1993), 1 and 6, published by the American Society of International Law, reproduced in Jackson et al (1995), Ibid, 259. For more details on national/territorial sovereignty, see Brownlie, I, *Principles of Public International Law* Oxford University Press (1998), 105-124; Jackson et al (1995) Ibid, 1, 99-100, 259-263; Green, NA *International Law*, London: Pitman (3<sup>rd</sup> Edition, 1987), 191-194; Quoc Dinh, N 'Droit International Public,' *Librairie Général de Droit et de Jurisprudence* (1975), 362-370; de Visscher, C *Théories et Réalités en Droit International Public* Paris: Editions A Pedone (1953), 29-33, 129-134; Goodrich, LM and Fox, WTR *Legal Effects of United Nations Resolutions* Columbia University Press, New York and London (1969); Harris, DJ *Cases and Materials on International Law* Sweet and Maxwell (1998), at 198, where he indicates that the meaning of territorial sovereignty was discussed in its pleadings in the *National Decrees in Tunis and Morocco case*, P.C.I.J. Rep, Series B, No. 4 (1923), thus: "...territory is neither an object nor a substance; it is a framework. What sort of framework? The framework within which the public power is exercised...territory as such must not be considered, it must be regarded as the external, ostensible sign of the sphere within which the public power of the state is exercised." See also, the *Island of Palmas Case, Netherlands v US* (1928), 2 R.I.A.A. 289; *Lotus Case, France v Turkey* (1927) P.C.I.J. Reports, Series A, No. 10. Dugard, J *International Law A South African Perspective* Juta & Co. (2000), 25, 112, 119, 286.

<sup>60</sup> Henkin (1993), Ibid; See Dugard (2000), Ibid, at 25. Here, through his discussion on the approach of the South African courts to international law during the apartheid period, it is evident that the doctrine of sovereignty can be abused in certain situations, *R v Christian* (1924) AD 101.

<sup>61</sup> See generally, Liftin, KT *The Greening of Sovereignty in World Politics* Cambridge: MIT Press (1998).

<sup>62</sup> Article XX(a).

<sup>63</sup> Article XX(b).

<sup>64</sup> Article XX(c).

<sup>65</sup> Article XX(d).

<sup>66</sup> Article XX(e).

<sup>67</sup> Article XX(f).

<sup>68</sup> Article XX(g).

<sup>69</sup> Article XX(h).

<sup>70</sup> Article XX(i).

<sup>71</sup> Hallstrom (1994), Supra 31, 89.

<sup>72</sup> See Jackson et al (1995), Supra 59, 312-313. GATT/WTO Article XX falls under Annex 1 of the GATT/WTO Agreement.

<sup>73</sup> See Sanitary and Phytosanitary Measures, and Preamble Clause of the New Agreement on Technical Barriers to Trade in this regard.

<sup>74</sup> Article 27.

<sup>75</sup> Article 14.

<sup>76</sup> See Section 8 of Ghana Trade Regulations, Customs and Standards, available in *Ghana Country Commercial Guide FY 2002*, (2002), Chapter 6, [http://www.usatrade.gov/website/CCG.nsf/CCGurl/CCG\\_GHANA2002-CH6-0048DEAB](http://www.usatrade.gov/website/CCG.nsf/CCGurl/CCG_GHANA2002-CH6-0048DEAB).

<sup>77</sup> Ibid.

<sup>78</sup> Section 4.

<sup>79</sup> See Côte d'Ivoire, Trade Regulations, Customs and Standards, available in *La Côte d'Ivoire Country Commercial Guide FY 2002*, (2002), Chapter 6, [http://www.usatrade.gov/website/CCG.nsf/CCGurl/CCG\\_COTE\\_D'IVOIRE2002-CH6-00457F97](http://www.usatrade.gov/website/CCG.nsf/CCGurl/CCG_COTE_D'IVOIRE2002-CH6-00457F97).

<sup>80</sup> Submitted to WTO's Trade and Policy Review Mechanism, see Annex 4, South Africa Document: SACU Trade Policy Review-South Africa WT/TPR/S/114/ZAF page A-4 213.

<sup>81</sup> Supra 49.

<sup>82</sup> See for example, Chapter 2.7.2 (a) on the Deterioration of Environmental Standards from Some Trading Activities; Chapters 5.2.5 and 6 on discussions pertaining to the effects of waste trade on the environment and Question 2, Annex 3 of Research project on this point.

<sup>83</sup> See relevant point under national treatment in Chapter 2.3.2 (b) (iv). This case is discussed in greater detail in Chapter 4.4.8 *Infra*; See also Chapter 3.5.2 (b) *Infra*, under Schoenbaum's viewpoint on legally permissible creative unilateralism, in Birnie and Boyle (2002). This is assessed alongside Kraëmer, case law such as the *Scottish Red Grouse* case and Ziegler's dissenting opinion in Neumayer, E "Greening the WTO Agreements: Can the Treaty Establishing the European Community be of Guidance?" *JWT* 35(1) February 2001, 145-166.

<sup>84</sup> See WTO, Ministerial Decision on Trade and Environment, Decision of 14<sup>th</sup> April 1994-ILM, Volume 33 (1994), 1267-1269 and WTO Trade and Environment Bulletin No. 3, Appendix 2 (May 8, 1995), for Agreement establishing the WTO Committee on Trade and Environment. See also, Chapter 3.4.10 (e) *Infra*, for a more detailed analysis of the workings of the WTO's Committee on Trade and Environment, as it touches on toxic waste trade regulation.

<sup>85</sup> *Supra* 51.

<sup>86</sup> Article XXIV.

<sup>87</sup> Hallström (1994), *Supra* 71, 79-86. On FTAs and Customs Unions, such as the European Free Trade Association and the European Economic Community-Association Agreements with African and Malagasy States and Overseas Countries and Territories, see Jackson et al (1995) *Supra* 72, 464-500, where they opine that FTAs and Customs Unions are the greatest exceptions to GATT/WTO rules and discuss the workings of these mechanisms; see also, Swacker et al (1996) *Supra* 22, 195-203, 222-242.

<sup>88</sup> See for instance, GATT/WTO Article XXIV:7a which requires that detailed notification of an FTA be provided to the GATT; GATT/WTO Article XXIV:8b which mandates that such agreements apply to "substantially all" trade between the partner countries and GATT/WTO Article XXIV:4 which prohibits an FTA agreement from raising trade barriers to third-country trade. On relevant case law involving consistencies of FTAs with GATT/WTO regimes, see for example, GATT ruling on Lomé Convention concerning banana imports from ACP countries into the EU (1993), discussed in Jackson et al (1995), *Ibid*, at 480; Davenport M et al *Europe's Preferred Partners? The Lomé Countries in World Trade* (Odi Special Report), on discussions under "Inconsistencies between the Lomé Convention and the GATT/WTO", at 65.

<sup>89</sup> See Articles II(1)(b) and (2)(b) of the OAU Charter 1963; See also, statement of African leaders reaffirming their commitment to this objective through the development of regional groupings as "a phase in the establishment of an expanded African market covering the entire continent", OAU Resolutions CM/Res.123 (IX) and CM/Res.125 (IX), Kinshasa, September 1967, in *AEC Newsletter, Supplement* Vol. IV No. 4. January-March 2001, *Supra* 90, (Issue No. 16), Ijebu-Ode, Nigeria, 18-20 December 2000, at 3.

<sup>90</sup> See Article 28 of Treaty; See also, *AEC Newsletter, Supplement* Vol. IV No. 4. January-March 2001, *Ibid*.

<sup>91</sup> See Constitutive Act of the AU, which entered into force on 26 May 2001. This Act for a superceded the OAU Charter of 1963, but in terms of Article 33(1) of the Constitutive Act, was operational transitional phase of one year, until the African Union was formally launched in Durban, South Africa in June 2002, Maluwa, T, "International Law-Making in Post-Colonial Africa; The Role of the Organization of African Unity", *Netherlands ILR* Vol. XLIX, No. 1, (2002), 81-105.

<sup>92</sup> See for instance, AU, *Report of the AU-NEPAD Consultations on Peace and Security*, 17-18 February 2003, Addis Ababa, Ethiopia. The Peace and Security Council (PSC) is a substitution of the Central Organ of the Mechanism for Conflict Prevention, Management and Resolution of the AU. The PSC represents a new dimension and evolution in the thoughts and efforts of African countries to address the phenomenon of conflict in a more resolute and concerted manner. The weaknesses and shortcomings of the Central Organ and the prevalence of conflicts necessitated more effective measures for managing and resolving the protracted conflicts on the continent. The establishment of the AU as the new regional organization to consolidate integration and to strengthen co-operation among African countries in all areas of human interaction, in particular, development and the elimination of conflicts on the continent, offered new opportunities to devise efficient mechanisms to achieve the goals of the new Union. The newborn determination among African countries and the concept of regional integration emanating from the establishment of the AU, gave impetus to the idea of the Peace and Security Council, which its architects envisioned to be a new buffer against the scourge of conflicts. The Protocol in every sense, is an innovation in thinking and efforts to resolve and prevent conflicts in Africa. Given the lessons learned in Rwanda, Burundi, Sierra Leone, Angola, Somalia, and other African countries, and the enormous challenges of post-conflict peacebuilding and reconstruction, the Protocol provides for innovative mechanisms to address the various phases of conflict prevention and management. One of the significant and phenomenal innovations of the Protocol is the provision in Article 4(j)



as in Article 4(h) of the Constitutive Act of the AU, for the Council to intervene in the internal matters of states in event of grave circumstances leading to genocide and crimes against humanity. In order to achieve what remain its ambitious goals, the Protocol provides for new mechanisms never before possible in the history of communal efforts in Africa to eliminate conflict: the Panel of the Wise, the African Standby Force, a Common Defense and Security Policy, *inter alia*. After being elaborated on, many legal texts for implementing these mechanisms were set for operationalization by the AU Maputo Summit in July 2003. The Extraordinary Summit in Addis Ababa in February 2003 formally incorporated the Peace and Security Council as an Organ of the AU, which shall have command over the maintenance of peace and security in the continent. At the level of the Commission, there shall be a Commissioner for Peace and Security and a Directorate run by the Director of Peace and Security.

<sup>93</sup> See UN General Assembly Declaration A/RES/57/2, UN Resolution Nos. A/RES/57/7 and A/RES/57/300, endorsing NEPAD as the framework for the UN system's support to Africa and confirming the consequent support of the UN to create an office on the work of NEPAD; OAU, *Declaration on the New Common Initiative (MAP and OMEGA)*, AHG/Dec.1(XXXVII), 9-11 July 2001; African Union, *NEPAD Workshop on Indicators, Benchmarks and Processes for the APRM*, 7-8 October 2002, Cape Town, South Africa.

<sup>94</sup> See AU, *Declaration on the Implementation of the New Partnership for Africa's Development (NEPAD)*, Assembly/AU/Decl.1(I), 8-10 July 2002 and AU, *Declaration on the Implementation of the New Partnership for Africa's Development (NEPAD)*, Assembly/AU/Decl.8(II), July 2003.

<sup>95</sup> See *Final Workshop Report-On Implementation of NEPAD*, 2-4 August 2002, Addis Ababa, Ethiopia, on Africans' formulation of this initiative and also, Question 7 of Research Project and Findings, concerning positive attitude of three case study countries towards NEPAD.

<sup>96</sup> H.E. Amara Essy, Interim Chairman of the Commission of the AU, World Summit on Sustainable Development, Johannesburg, South Africa, Friday, 30 August 2002, SABC News, 19:00 hours, when he advocates the involvement of civil society in decision-making, as this could be a driving force behind eradicating corruption. It could be reasonably inferred that if such a recommendation is extended to NEPAD, the inclusion of civil society in the decision-making of NEPAD, will indeed ensure the absence of corruption and its success. Such involvement has actually begun and is on the increase as well.

<sup>97</sup> Report of NEPAD Steering Committee Meeting with the G8, Held at the ECA Conference Room 5, December 7, 2001, Paragraph 31; *Communiqué Issued at the End of the Fifth Summit of the Heads of State and Government Implementation Committee (HSGIC) of the New Partnership for Africa's Development*, Abuja, Nigeria, Sunday, 3 November 2002, Paragraph 22 on the Role of Regional Economic Communities.

<sup>98</sup> See Article 9(1) of the Constitutive Act of the AU which provides that the AU shall monitor the implementation of policies and decisions of the Union and ensure compliance by all member states. See also, Article 23(2) which provides that any member state which fails to comply with the decisions and policies of the Union may be subjected to sanctions and other measures of a political and economic nature to be determine by the Assembly. On the *African Peer Review Mechanism of NEPAD*, see *Report of the Fifth Meeting of the Heads of State Implementation Committee of NEPAD*, Abuja, Nigeria, 1-3 November 2002, D; *Abuja Communiqué*, Ibid (3 November 2002), paragraphs 13-20; African Union, *NEPAD Workshop on Indicators, Benchmarks and Processes for the APRM*, 7-8 October 2002, Cape Town, South Africa, *Declaration on Democracy, Political, Economic and Corporate Governance*, Paragraph 28, AU Document AHG/235 (XXXVIII), Annex I; African Union, *NEPAD Workshop on Indicators, Benchmarks and Processes for the APRM*, 7-8 October 2002, Cape Town, South Africa, *The New Partnership for Africa's Development, The African Peer Review Mechanism AHG/235 (XXXVIII)*, Annex 2.

<sup>99</sup> *Communiqué Issued at the End of the Sixth Summit of the Heads of State and Government Implementation Committee (HSGIC) of the New Partnership for Africa's Development*, Abuja, Nigeria, Sunday, 9 March 2003, Paragraphs 8-11; On the Peace and Security Council of the AU, see fn. 92. See also, Asamani (1998), Supra 54, Chapter 4.2.3, concerning the effective functioning of macroeconomic policies being incumbent on the prevalence of political stability and peace.

<sup>100</sup> *Report of Workshop on Implementation of NEPAD*, 2-4 August, 2002, Addis Ababa, Ethiopia, esp. at 6, on proposed organogram for implementation of NEPAD.

<sup>101</sup> See Paragraph 3 of Chapter 3.4.12 (b).

<sup>102</sup> See Fay, R "Economic Community of West African States or ECOWAS", available at [http://www.africana.com/Articles/tt\\_477.htm](http://www.africana.com/Articles/tt_477.htm); "Who is Who in African Integration...(ECOWAS)", available at <http://www.focu.intl.com/whos004.htm>; "An Mbendi Profile: Economic Community of West African States", available at <http://mbendi.co.za/cb17.htm>.

<sup>103</sup> This conforms to the requirement for free circulation of citizens, under the Travel, Transport and Communications Sector, See "Who is Who in African Integration...(ECOWAS)", available at <http://www.focu.intl.com/whos004.htm>, at 2.

<sup>104</sup> Ibid, under Economic Development Sector. Other success stories include improvements in the transportation system of ECOWAS. Through a more effective road network, it becomes possible to travel and market goods, and promote economic integration. Hence, though the transport and communication system in West Africa still needs to be improved upon, at least, so far, regional projects in these critical sectors include the trans-coastal highway and the trans-Saharan Highway. These form part of the Trans-West African Highway network and have reached implementation levels of 83 and 87 per cent respectively. Furthermore, ECOWAS has already implemented its second Telecommunication Programme, *AEC Newsletter, Supplement* Vol. IV No. 4. January-March 2001, Supra 90, at 4 where other accomplishments of ECOWAS are recorded.

<sup>105</sup> See Question 4(b) and findings of research project on illicit toxic waste trading practices from Nigerian and Ivorian borders to Ghana.

<sup>106</sup> Fact Sheet: The Southern African Development Community, available at [http://www.state.gov/www/regions/africa/fs\\_sadevelop\\_971204.html](http://www.state.gov/www/regions/africa/fs_sadevelop_971204.html)

<sup>107</sup> This includes specific results attained under the successful implementation of SADC Project AAA.6.5 SADC Industrial Energy Management Program, SADC, *Energy Annual Report* (July 2001-June 2002), see 24-25.

<sup>108</sup> *AEC Newsletter* (2001) Supra 104, at 5.

<sup>109</sup> "East African Community" (EAC), From Co-operation to Community" (1996-2001), available at [http://www.eacq.org/About\\_EAC/from\\_co-op\\_to\\_community.htm](http://www.eacq.org/About_EAC/from_co-op_to_community.htm)

<sup>110</sup> Ibid, at 1-6 on Highlights of Achievements of EAC; Telephonic discussions with official from EAC, Arusha, Tanzania, July 2002.

<sup>111</sup> Fiche d'Identité: la CEMAC, Communauté Economique et Monétaire de l'Afrique Centrale (CEMAC), available at <http://www.izf/FicheIdentite/CEMAC.htm>.

<sup>112</sup> Loumabéka, T "Ministers of Trade of the African Economic Community Confer and Decide", in *AEC Newsletter*, Vol. IV No.4. January-March, 2001 (Issue No. 16), at 16, paragraph 7; see also, OAU/African Economic Community, *Brief on Trade Liberalization Programmes in Africa*, at 2, Paragraph 3.4, 2<sup>nd</sup> Ordinary Session of OAU/AEC Ministers of Trade Committee on Trade, Customs and Immigration, 20-24 September 1999, Algiers, Algeria, OAU Document OAU/AEC/TD/MIN/4/(II).

<sup>113</sup> See <http://www.coi.intnet.mu>; Mot du Secrétaire General de la COI, Wilfrid Bertile.

<sup>114</sup> Ibid.

<sup>115</sup> <http://www.arab.de/arabinfo/league.htm>, "The Arab League-The League of Arab States".

<sup>116</sup> Ibid.

<sup>117</sup> Ibid.

<sup>118</sup> Supra 88.

<sup>119</sup> See *UN News From The Heart of Europe*, Brussels, Issue 4, March 2000, at 1, 17-18. See also, the examples of other regional and sub-regional groupings such as the SACU, comprising Botswana, Lesotho, Namibia and Swaziland, and the EU/South Africa Agreement which foresees substantially free trade between South Africa and the EU by 2008. The *African Economic Community (AEC) Newsletter* provides the benefits of free trade, including a more efficient use of natural and human resources, which are derived from regional integration, such as FTAs and Regional Economic Communities, see *AEC Newsletter, Supplement* Vol. IV No.4. January-March, 2001, Supra 112, at 2-6, on discussions pertaining to the benefits of FTAs. Other examples of FTAs include The Africa Growth and Opportunities Act from which African countries including South Africa have benefited greatly, South Africa E-News, 29<sup>th</sup> May 2003, at 19:00 hours; The US-Africa Initiative and the ACP trade preferences, see OAU/AEC, "2<sup>nd</sup> Ordinary Session of the OAU/AEC Ministers of Trade Committee on Trade, Customs and Immigration," 20-24 September 1999, Algiers, Algeria. See also, Schott, JJ *More Free Trade Areas?* Instituté for International Economics (May 1989), at 2 and 16 on-benefits of FTAs, at 5 on US-Israel example of FTAs and at 6 on Canada-US FTA example.

On other GATT exceptions, see for example, the General System of Preferences (Hereinafter GSP) which simply grant developing countries more lengths of time to honour their WTO obligations, as enshrined in Article XXXV. This provision thereby deviates from GATT rules. If they were strictly adhered to, developing countries and especially least developed countries would not be able to compete on an equal footing with their developed country trading partners, and must at least be granted these terms until they are more sufficiently equipped to compete with developed countries on an equal footing; Kofele-Kale, N 'The Principle of Preferential Treatment in the Law of GATT: Toward Achieving the Objective of an Equitable World Trading System', 18 *Calif. W. Int'l L.J* 291 (1987/88), cited and discussed in Asamani (1998) Supra 99, at Chapter 3.

Other exceptions include the Non-application of the Agreement between particular Contracting Parties (Article XXXV); Exceptions to National Treatment Principle; Exception for Developing Countries (Article XVIII); Exceptions to Principle of Elimination of Quantitative Restrictions and Principle Concerning Tariffs, namely, Safeguards (Article XI); Anti-Dumping (Article VI); Waiver to Obligations (Article XXV); Restrictions to the balance of payments safeguards (Article XII); Export restrictions applied to prevent critical shortage of foodstuffs *inter alia* (Article XI); Retaliatory Measures Authorised by the Dispute Settlement Body (XXIII); Security Exceptions (Article XXI). On the Lomé Convention, see for example, Jackson et al (1995), Supra 87, 478-481 and Koulaïmah - Gabriel, A "Beyond Lomé IV: Future Challenges to EU-Africa Relations", *RECIEL*, Volume 6, Issue 1, 1997, 14-22.

<sup>120</sup> See Pantin, D and Hosein, R "Repas or Rip-Off? A Critical Review of the Cotonou Agreement from the Perspective of the African, Caribbean and Pacific (ACP) Member Countries", Final Report on CPDC Commissioned Study, Economics Department, The University of the West Indies, St Augustine Campus, Trinidad and Tobago, February 2004, for more details; See also, <http://www.eusa.org.za/Content/Development/lome.html>. For full text of Convention, see [http://europa.eu.int/comm/development/body/cotonou/agreement\\_en.htm](http://europa.eu.int/comm/development/body/cotonou/agreement_en.htm).

<sup>121</sup> United Nations Economic Commission for Africa "Sixth Meeting of the Intergovernmental Committee of Experts for Southern Africa (ICE) and Sub-regional Workshop of National Information and Communication Infrastructure in Southern Africa (NICI)," 11-14 April 2000, Windhoek, Namibia (*Report of the Director, October 1998-April 2000*), where improvements are being made in the road network of SADC, for example; See also, fn. 104, for example, on Trans-West African Highway Network.

<sup>122</sup> See for example, Supra 76-80. Here, it is evident that membership of the three case study countries to the WTO means that when the countries are imposing trade restrictive measures, it should necessarily be consistent with WTO rules.

<sup>123</sup> Submitted to the WTO's Trade and Policy Review Mechanism, Annex 4, Supra 80. All other information relating to South Africa's subsidies, laws and regulations on imports and exports are also submitted to the WTO, in this document.

<sup>124</sup> Chapter 2.6.1 (c), Supra 161; See also, Asamani (1998), Supra 120, Chapter 5.2 on South Africa's deeper integration into the world trading system; See for example, South African Department of Agriculture *The General Agreement on Tariffs and Trade (GATT)* "Background and Implications for South Africa", February 1994.

<sup>125</sup> Pugel and Lindert (2000), Supra 4, 268-270.

<sup>126</sup> Supra 79.

<sup>127</sup> See Supra 73 on these Agreements.

<sup>128</sup> Supra 84.

<sup>129</sup> See *Asbestos Case*, Supra 51.

<sup>130</sup> Principle 12.

<sup>131</sup> Supra 52.

<sup>132</sup> See UNEP Decision on Co-operation with the WTO, UNEP Document UNEP/CHW.6/L.1, December 2002, discussed in Chapter 3.4.1(f)(ii) of this thesis; See also, Chapter 2.3.2(a) under similar discussions on national policy.

<sup>133</sup> Mander and Goldsmith (2001), Supra 53; Pugel and Lindert (2000), Supra 125; On Chapter 2.5, see also, Schulze, HCAW *International Tax-Free Trade Zones and Free Ports* Butterworths (1997).

<sup>134</sup> Jayawardena, DLU 'Free Trade Zones' (1983) *JWTL*, 427-444

<sup>135</sup> Thoman, RS *Free Ports and Foreign Trade Zones* Cornell Maritime Pr. (1956), 11-12.

<sup>136</sup> Jayawardena (1983), Supra 134.

<sup>137</sup> Jayawardena, (1983), Ibid.

<sup>138</sup> Jayawardena, (1983), Ibid.

<sup>139</sup> Jayawardena, (1983), Ibid, 427-444.

<sup>140</sup> Jayawardena, (1983), Ibid, 429-432.

<sup>141</sup> Jayawardena, (1983), Ibid, 433.

<sup>142</sup> Jayawardena, (1983), Ibid, at 433, and also, other parts of this article, for discussions on other countries such as Panama, 439-440, 443, who through FTZs, crossed the frontiers of underdevelopment which most third world nations have not been able to attain.

<sup>143</sup> Ghana FTZ Act 504, May 1996.

<sup>144</sup> Ibid.

<sup>145</sup> Ibid.

<sup>146</sup> Ibid.

<sup>147</sup> Supra 79.

<sup>148</sup> Wall, D 'Export Processing Zones' 10 (1976) *JWTL*, 478-489.

<sup>149</sup> Wall (1976), Ibid, at 482.

<sup>150</sup> Amado, JD "Free Industrial Zones: Law and Industrial Development in the new International Division of Labour" 11(1989) *UPJBL*, 81-150, at 82.

<sup>151</sup> See Jayawardena (1983), Supra 142, 427; For more details on FTAs and how they operate, see Chapter 2.3.2 (b) above on Regional Agreements under WTO Exceptions.

<sup>152</sup> On comparative advantage, see Ricardo, D *On the Principles of Political Economy and Taxation*, 1817, 133-149 of the 1951 edition of his collected works, discussed in Pugel and Lindert (2000), Supra 125, 32, 38-40; On this point, see for example, the Heckscher-Ohlin theorem in Yarborough and Yarborough (2000), Supra 4, 81-83, 88-91. For more details on transparency and reciprocity within the GATT/WTO, see Long (1987), Supra 37, 10-11.

<sup>153</sup> See Chapter 5.4 infra.

<sup>154</sup> As a matter of fact, these theorists stress that coupled with the free trade benefits in 2.6.1(a) and 2.6.1(c), this ensures efficiency in international trade, from an economic perspective, Wolf, M "Why Trade Liberalization is a Good Idea", in Finger, JM/Olechowski, A *The Uruguay Round, A Handbook on the Multilateral Trade Negotiations* Washington DC: World Bank (1987), 14-21, at 14-15. See also, this whole document for a better appreciation of the benefits of trade liberalisation.

<sup>155</sup> Olson, M *The Rise and Decline of Nations: Economic Growth, Stagflation and Social Rigidities* New Haven and London: Yale University Press (1982), Chapter 5.

<sup>156</sup> Sachs and Warner (1995), cited in International Monetary Fund *Trade Liberalization in IMF Supported Programmes* World Economic and Financial Surveys International Monetary Fund, Washington DC (February 1998), at 36-37; See also, Box 2, at IMF (1998), 3. On Smith and Mill's analysis of the gains of trade and full utilisation of a country's resources in free trade as well as how this enhances growth, see Gray, HP *Free Trade or Protection: A Pragmatic Analysis* Basingstoke: Macmillan (1985), Chapter 5, especially at 70, where this is discussed.

<sup>157</sup> [http://www.wto.org/english/news\\_e/sprr\\_e/bonn\\_e.htm](http://www.wto.org/english/news_e/sprr_e/bonn_e.htm), 'A Shared Responsibility: Global Policy Coherence For Our Global Age,' at 1 to 8.

<sup>158</sup> Miller, H *Free Trade v Protectionism, The Reference Shelf* New York: HW Wilson (1996) 68 (4), 130. See also, Miller's further discussion at 127-131 on how the economies of Chile and India benefited from free trade, and suffered financial losses under protectionism.

<sup>159</sup> Miller (1996), Ibid, at 131; See also, Pugel and Lindert (2000), Supra 152, 273-274.

<sup>160</sup> This also owed to the prevalence of long-term political stability in this country, until recent times when it has been ravaged by civil war. As a matter of fact, Côte d'Ivoire achieved a lot of economic progress, with a high level of industrial and infrastructural development in past times.

<sup>161</sup> Asamani (1998), Supra 124, Chapter 5.1.1 under 'South Africa's International Isolation and the Consequences Thereof'; Davis, G *South African Managed Trade Policy, The Wasting of a Mineral Endowment* Westport, Conn: Praeger (1994), esp. at 13-30; Chapter 2.3.3 Supra.

<sup>162</sup> Hull, 1948, I:81, cited by Cooper, RN "Trade Policy as Foreign Policy" in Stern, RM *US Trade Policies in a Changing World Economy* Massachusetts Institute of Technology (1987), 291-299, at 299; See also, Hull, 1948, I:364, cited by Cooper in Stern (1987) here.

<sup>163</sup> Stern (1987), Ibid at 82, while discussing the US Trade Expansion Act 1934; See also, Cooper, RN in Stern (1987), Ibid, at 299, where he provides that Hull, C Secretary of State from 1934-1944, under the Roosevelt Administration, was faced with the seemingly daunting task of picking up the foreign policy pieces left by the Great Depression and believed that the ground rules of international trade were a determining factor as to whether the world lived in peace and harmony. On other arguments in favour of free trade and its added advantages, see for example, McCulloch, R "The Optimality of Free Trade: Science or Religion?", (1983) *AER*, Volume 83, 367-371; Mussa, M "Making the Practical Case for Freer Trade" (1993) *AER*, 372-376; Krugman, PR "The Narrow and Broad Arguments for Free Trade", (1993) *AER*, Volume 83, 362-366; Sjostedt, G and

Sundelius, B *Free Trade-Managed Trade?: Perspectives on a Realistic International Trade Order* Boulder: Westview Press (1986), for example, at 1-6, where they recommend free trade as an important tool for national policy making, as opposed to protectionism, which is only catastrophic, and even if beneficial, is simply short-lived. Adams, W et al in *Tariffs, Quotas and Trade: The Politics of Protectionism* Institute for Contemporary Studies, San Francisco, CA (1979) also postulate that in marginal circumstances where workers and industries are threatened, protectionism may be the rightful path on which to embark. Advantageous though this may be, it is also at the cost of greater harm to the industries that would benefit from trade liberalisation. This notwithstanding, overall, free trade is the better option to choose.

<sup>164</sup> On the benefits which free trade is said to confer on a minority at the expense of the majority, see Roberts, RD in *The Choice: A Fable of Free Trade and Protectionism* Englewood Cliffs, NJ: Prentice Hall (1994); For dissenting opinions on free trade which advocate the need to adhere to protectionism, see Gray (1985), Supra 156, who cites the renowned British economist, Keynes JM, at 22-89. Keynes adheres to the view that protectionism may be good for the protection of infant industries. The Keynesian view is also discussed by Giersch, H "Why Trade is Not Free: Is There a Clash between Theory and Practice?", in *Free Trade in the World Economy: Towards an Opening of Markets* Institut fur Weltwirtschaft an der Universitat, Kiel, 1986 Symposium (1987), 1-31, at 1-31 and in Shutt, HD *The Myth of Free Trade: Patterns of Protectionism since 1945* Oxford, OX, UK: B. Blackwell London: Economist Books (1985), at 6; Shutt at 5, for example, also criticises the manifest fragility of free trade benefits and its consequent theories; See also, Bhagwati (1988), Supra 5, 30-86.

<sup>165</sup> The WTO website [http://www.wto.org/english/news\\_e/sprr\\_e/bonn\\_e.htm](http://www.wto.org/english/news_e/sprr_e/bonn_e.htm), under the benefits of free trade was very useful in providing this information.

<sup>166</sup> [http://www-chil.wto-ministerial.org/english/news\\_e/press01\\_e/pr252\\_e.htm](http://www-chil.wto-ministerial.org/english/news_e/press01_e/pr252_e.htm).

<sup>167</sup> Produced in Davenport et al, Supra 118, Table 4.4, under "Recent Estimates of the Impact of the Uruguay Round on Global Income/Welfare", 52.

<sup>168</sup> Produced in Davenport, Ibid.

<sup>169</sup> Miller (1996), Supra 159, at 31-32.

<sup>170</sup> Discussions with officials at La Société Ivoirienne de Raffinage, June 2003. See also, <http://www.sir.ci>.

<sup>171</sup> See Chapter 5.4.19, Infra, on proposal for waste recycling projects in case study countries.

<sup>172</sup> See Chapter 2.7.1 (a), Infra, for more examples. For skeptical opinions of such positive attributes of the WTO, see Wilkinson (2001), Supra 34, at 397-419, which claim that the WTO mainly benefits industrialised nations; SABC News, Ibid. Though the Uruguay Round has made progress in reducing barriers to developing countries' products into the first world, significant tariff escalations and numerous tariff peaks still remain. Hence, LDCs sometimes still perceive the benefits of free trade to be to the sole advantage of developed countries. However, though the WTO Singapore Ministerial Meeting (1996), Geneva Ministerial Meeting (1998) and Seattle Ministerial Meeting (1999), for example did not come out with concrete examples of the eradication of trade barriers in a vital sector such as agriculture which would enable developing countries to feel the positive benefits of trade, the WTO Ministerial Conference in Doha (2001), concluded specific declarations and elaborations on this matter. The recently convened WTO ministerial meeting in Mexico (2003) reviewed this Doha mandate and made further attempts at helping developing countries to reap such positive benefits of trade.

<sup>173</sup> See [http://www.wto.org/english/news\\_e/sprr\\_e/bonn\\_e.htm](http://www.wto.org/english/news_e/sprr_e/bonn_e.htm), Supra 165, at 1.

<sup>174</sup> Ibid.

<sup>175</sup> See fns. 176 and 177 infra.

<sup>176</sup> See Chapter 5.4 for full details.

<sup>177</sup> Supra 170. See also, Chapter 2.7.1 (a), Infra, for more examples and discussions; See also, Chapter 5.4 for discussions on the proposed projects.

<sup>178</sup> Jackson et al (1995), Supra 119, at 317; SABC News of 13<sup>th</sup> November 2001, at 20:00 hours, when it was indicated that LDCs have been given more concessions and attention, and could thus be more satisfied, during the WTO meeting in Doha, in November 2001, which was an improvement on WTO meetings in Seattle in 1999 and Singapore in 1996, in this respect.

<sup>179</sup> Supra 96.

<sup>180</sup> This dispute settlement mechanism should work in close collaboration with the WTO's Committee on Trade and Environment when ruling on various disputes.

<sup>181</sup> H.E Mr. Nitin Desai, Secretary-General for World Summit for Sustainable Development, Johannesburg, 2002.

<sup>182</sup> Miller (1994), Supra 169.

<sup>183</sup> Miller (1994), Ibid.

<sup>184</sup> Ghana Standards Board Publication "IV: Finding the Market", at 94, based on International Trade Commission (ITC)/UNCTAD/WTO "Selective Bibliography of Published Market Reports" (Technical Paper 1998).

<sup>185</sup> Discussion with World Bank Official, Accra, Ghana, December 2002.

<sup>186</sup> Housman, R. et al, *United Nations Environment Programme: The Use of Trade Measures in Select Multilateral Environmental Agreements* No. 10 Environment and Trade Series (1995), 139, fn. 20. It has also been estimated that between 1980 and 1993, trade in metal-bearing residues had an average value of \$37.2 billion per year (1985 US dollars). Although the export of metal scrap from the OECD to developing countries amounted to \$ 2.9 billion in 1993, there has been dramatic increase in recent years from 5.2% in 1980 to 29% in 1993, according to Alter (See Alter, H "Industrial Recycling and the Basel Convention", *Resources, Conservation and Recycling* 19 (1997): 29; M. Guevare and M. Hart, *Trade Policy Implications of the Basel Convention Export Ban on Recyclables from Developed to Developing Countries*, Report for the International Council on Metals and the Environment (Ottawa, 1996), 2; and Cox, A and Sheales, T "Basel Convention: Economic Issues in the Ban on Shipments of Hazardous Waste", *Australian Commodities* 3, no. 3 (September 1996): 389; produced in Krueger, J "What's To Become of Trade in Hazardous Wastes?" (Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal), *Environment*, November 1999.

<sup>187</sup> Peters, K (in association with Mazingira Institute, Nairobi, Kenya, March 1998) "Community-Based Waste Management for Environmental Management and Income Generation in Low-Income Areas: A Case Study of Nairobi, Kenya" *Urban Agriculture Notes* (Published by City Farmer, Canada's Office of Urban Agriculture (Also available at: <http://www.cityfarmer.org/NairobiCompost.html> ), for example of recycling household waste in Kenya.

<sup>188</sup> SABC News, Friday 30<sup>th</sup> August 2002, South Africa.

<sup>189</sup> See also, Bouverie, J "Recycling in Cairo: A Tale of Rags to Riches", *New Scientist*, 29 June 1991, 52-55, for example of Egypt.

<sup>190</sup> See Chapter 5.3.1(b)(ii) for further details.

<sup>191</sup> See Findings of Research Project, under South Africa, response of EJNF to Question 5(a), May 2002.

<sup>192</sup> Ward (1994), *Supra* 31, at 266; On EIAs, see for example, Glazewski (2000), *Supra* 12, at 271, 272, 274, 275, 305.

<sup>193</sup> See Chapter 2.7.2 (a), under Deterioration of Environmental Standards; See also, Chapter 5.3.1 (a) of thesis on economic motives in toxic waste trade.

<sup>194</sup> Discussions with official from Red Cross Hospital, on management and recycling of medical waste, which has also won governmental approval, July 2002; See also, *Tatler Newspaper*, Thursday, 4 July 2002, at 1, where article on this practice is discussed.

<sup>195</sup> See Tolosana, S and Ehrlich, R "Composition of Liquid Effluent Discharged by Medical Institutions in Cape Town", *South African Journal of Science* 96, August 2000, 417-420, for further information on treatment of medical waste in Cape Town. This is useful for the two other case study countries, in carefully managing their waste, before trading in its less toxic forms.

<sup>196</sup> See for example, Jackson et al (1995), *Supra* 178, at 562 on the usefulness of free trade in increasing technology.

<sup>197</sup> Information obtained from South Africa's Department of Agricultural Affairs, April 2002.

<sup>198</sup> Information obtained during research trip, Ghana Atomic Energy Commission and FAO Country Office, Accra, Ghana, December 2002.

<sup>199</sup> See UNEP Declaration on Phase Out of Leaded Gasoline, Dakar, March 2002.

<sup>200</sup> See *UNEP Press Release 2003/02*, "Switch to Unleaded Petrol in Sight for Africa", based on UNEP Governing Council Meeting, 3-7 February, 2003, Nairobi, Kenya.

<sup>201</sup> See <http://www.africastockpiles.org>; See also, Report of UNEP Chemicals, Meeting of Steering Committee of the Africa Stockpiles Programme, Geneva, Switzerland, 21-31 October, 2002; See also, Chapter 3.2.10, under discussions on Common but Differentiated Responsibility.

<sup>202</sup> Congressman Tom Allen Press Release, "Representative to Introduce Bill to Stop Used Mercury From Being Dumped in Third World Countries", Portland, Maine, USA, 25 January 2001 (Also available at

[http://www.ban.org/ban\\_news/representative.html](http://www.ban.org/ban_news/representative.html)). See also, Gupta, R "America's Unwanted Heading for India?", New Delhi, India, 2 January 2001, at 2 (Also available at [http://www.ban.org/ban\\_news/representative.html](http://www.ban.org/ban_news/representative.html)).

<sup>203</sup> Alterio, JM "Billion PCs Add Up to Just So Much Garbage", *The Journal News*, Toxic Trade News (Also available at [http://www.ban.org/ban\\_news/billion\\_pcs.html](http://www.ban.org/ban_news/billion_pcs.html)).

<sup>204</sup> SADC *Sub-Regional Development Report, Implementation of Agenda 21: Review of Progress Made Since The UNCED 1992*, Information Provided by SADC to the United Nations Commission for Sustainable Development, Fifth Session, 7-12 April 1997, New York, at 24. (Available at <http://www.un.org/dpcsd/earthsummit> and [http://www.un.org/esa/earthsummit/sadc\\_cp.htm](http://www.un.org/esa/earthsummit/sadc_cp.htm)). Indiscriminate patterns of toxic waste disposal and trade exist in the three case study countries, especially in local communities, or within poor neighbourhoods in big cities, as discussed within the context of environmental racism in Chapter 5.

<sup>205</sup> Vaughan, S "Trade and the Environment: Building the Revolutionary Framework", <http://www.unep.ch/t&e/ico.html>, (08/26/97), at 4.

<sup>206</sup> Vaughan (1997), Ibid.

<sup>207</sup> Ward (1994), Supra 192.

<sup>208</sup> See for example, Koko Incident of Nigeria, Chapter 5.4.8, under brief secondary references on hazardous waste importation into other developing countries; See also, Findings for Research Project, Question 2, under Ghana; See also, fn. 220 infra.

<sup>209</sup> See scientific evidence involving how toxic waste affects the health and environment, Chapters 5.2 and 6, and Question 2 of Annex 3.

<sup>210</sup> See *Asbestos Case*, Supra 51; See also, scientific analysis of the effect of asbestos on human health, Findings of Research Project, Question 2, Annex 3 (A), (B) and (C) of this thesis.

<sup>211</sup> Louw, R "Foreign Companies Flayed for Toxic Waste", *JAR*, May 16, 1997, Volume 15 No, 20, 3-4, at 3; See Chapter 5.4.2 on full analysis of *Thor Chemicals* tragedy in this context.

<sup>212</sup> Louw (1997), Ibid.

<sup>213</sup> Glazewski (2000), Supra 192, 761-762.

<sup>214</sup> <http://www.idrc.org.za/chap11.htm>.

<sup>215</sup> In this respect, it may be necessary for workers and people within neighbouring communities to be assisted, through more flexibility in establishing the causal link requirement between an environmental/health problem and the relevant activity which resulted in such a problem, in labour law issues and for the purposes of this thesis, in the proposed toxic waste law. See for example, Article 5(f) of the model law in Chapter 6.

<sup>216</sup> See Analysis of Findings of Research Project, under Question 5(b).

<sup>217</sup> Kiss, A and Shelton, D *International Environmental Law* Transnational Publishers, Inc. (1991) 134, 218-221.

<sup>218</sup> Dr. Luigi Puistone, Clean Technologies for the Production/Elimination of POPs, SIIRTEC NIGI S. p.A. available at <http://www.epa.gov/ncea/diox/htm>; See also *Mocarelli Seveso: A Teaching History*-Plenary Lecture, Dioxin '99, Venice, Italy.

<sup>219</sup> "Occidental to Pay \$129 Million in Love Canal Settlement", For Immediate Release, Thursday, December 21, 1995 (Also available at [http://www.usdoj.gov/opa/pr/Pre 96/December95/638.txt](http://www.usdoj.gov/opa/pr/Pre%2096/December95/638.txt), at 2).

<sup>220</sup> Marbury, HJ "Hazardous Waste Exportation: The Global Manifestation of Environmental Racism" (March 1995) *Vanderbilt JIL*, Vol. 28 No. 2, 251-294, at 258-259. For further examples on how trade can deteriorate environmental standards, see also, the Bhopal Incident, discussed in Mander and Goldsmith (2001), at 86 and 147. See the ecological disasters, such as the withering and eventual drying up of trees from toxic waste incidents, Koko Incident, Importation of toxic waste into Guinea-Conakry, Guinea-Bissau, Congo Brazzaville, for example, discussed in Peter, CM "The Right to a Clean and Satisfactory Environment: A Note on the Export of Toxic Waste to Africa", *Lesotho LJ* 23-51. The petroleum explorations of Shell International Company in Nigeria is another example of how trade can adversely impact on the environment.

<sup>221</sup> Vaughan (1997), Supra 206; South African TV E-News, 29 April 2003, at 19:00 hours, confirmed that this acute respiratory problem amid human life in this region persists till present day.

<sup>222</sup> Discussions with officials from Environmental Affairs Ministries in these countries, and visits to some of these places, 2002-2003.

<sup>223</sup> See for example, paragraphs 5 and 6 of Chapter 2.7.1(a).

<sup>224</sup> Retallack, S "The Environmental Cost of Economic Globalization", in Mander and Goldsmith (2001), Supra 221, 189-202; at 202, see especially paragraph 3.

<sup>225</sup> See Chapter 5.4.4 on Fry's Metals.

<sup>226</sup> See for example, UNEP Document UNEP/CHW.6/20 and Corr. 1 on Biomedical and Healthcare Wastes, December 2002; UNEP Document UNEP/CHW.6/22 on Basel Technical Guidelines on the Environmentally

Sound Management of Waste Lead Acid Batteries, December 2002, Document UNEP/CHW.6/CRP.20, on the Guidelines concerning the Mobile Phone Initiative, December 2002 and UNEP Document on Guidelines Regulating Plastic Ware, which, alongside other UNEP Guidelines such as those on the Dismantling of Ships, were adopted between Basel COP5 and COP6. For international yardsticks in waste recycling, see also, "Welcome to the IPCS Intox Programme", available at <http://www.intox.org>; "UNEP Chemicals", available at <http://www.chem.unep.ch>; "What is Intox", available at <http://www.intox.org/pagesource/intox%20area/what%20is/whatis.htm>; "The International Programme on Chemical Safety", available at <http://www.who.int/pcs>; "The Gateway to Children's Environmental Health", available at <http://www.int/peh/ceh>.

<sup>227</sup> Supra 207. On EIAs, see for example, Glazewski (2000), Supra 213, at 271, 272, 274, 275, 305.

<sup>228</sup> See Chapter 3.2.4 on the preventive principle and Chapter 3.2.2 on the precautionary principle; Conclusion, Articles 5(c) and 5(d), on the incorporation of the preventive and precautionary principle into the model law.



### **CHAPTER 3: INTERNATIONAL LEGAL PROTECTION OF THE ENVIRONMENT AND HAZARDOUS WASTE TRADE**

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## **CHAPTER 3: INTERNATIONAL LEGAL PROTECTION OF THE ENVIRONMENT AND HAZARDOUS WASTE TRADE**

*"As international environmental law and its accompanying national legislation for environmental protection continue to develop, becoming more widespread and sophisticated, so do opportunities for criminal activities to evade them... Hence the need for concerted action at national, regional and international levels to focus on measures to strengthen compliance".<sup>1</sup>*

### **3.1 Introductory Remarks**

Similar to other environmental challenges, illicit global trade in hazardous waste, has for the past few decades, been a priority area of focus by the world's nations<sup>2</sup> through their establishment of appropriate international, regional and municipal legal regimes. These workings have culminated in the development of soft law principles, conventions and soft law instruments in international environmental law, which should be accordingly reflected in domestic law. Though soft law principles are not binding *per se*, their importance lies in the predominant role which they have come to play in international environmental law through, *inter-alia*, the establishment of acceptable norms of behaviour and the codification or possible reflection of customary law rules.<sup>3</sup> As discussed in this Chapter, the fact that soft law principles are reflected in certain international conventions including environmental treaties regulating toxic waste trade, also reinforces this point. Soft law principles represent only a portion of environmental law though.<sup>4</sup>

This chapter analyses these soft law principles, followed by discussions on their applicability to relevant international environmental law conventions and soft law instruments, UN institutions and the domestic legal regimes of the three case study countries, as far as toxic waste trade regulation is concerned. The treaties, being more legally binding than the other mechanisms, are discussed prior to the latter. For the purposes of this thesis, a considerable degree of emphasis is placed on how these principles were developed by international institutions, their increasing importance in contemporary times and how they can be applied so as to reflect in the anticipated laws which regulate the commercialisation of hazardous waste in the three case study developing countries and their surrounding African regional mechanisms. In doing this, due attention is also paid to other relevant principles which were enunciated in public international law, and their relevance to the municipal legal regimes of South Africa, Ghana and Côte d'Ivoire. This chapter therefore deals with the regulation of hazardous

waste trade in international environmental law, and to a marginal extent, domestic law. However, international environmental law is the predominant focus of discussions here, as domestic law is exclusively analysed in-depth in Chapter 5, when reviewing characteristic patterns of toxic waste trade policy and practice in the three case study countries.

These discussions also provide a reasonable justification for the concerted action, discussed in the abstract above, which states must adopt when resolving these problems. This sort of action could be termed as multilateralism and basically occurs when states co-operate with one another to resolve problems including environmental dilemmas such as illegal hazardous waste disposal and trade. The multilateral approach/multilateralism has also been discussed in Chapter 1.<sup>5</sup> The probability of resultant environmental destruction from economic liberalisation and more specifically, hazardous waste trade, is a problematic global issue. The implication of this is clear: waste is transported from one territory to another and necessitates a co-operative approach to regulation on the part of the receiving country as well as the exporting country as mismanagement of such waste could cause grievous environmental harm to either state or even third parties in transit and neighbouring countries, for instance.

From the ensuing discussions, it is obvious that states, even under the principle of national sovereignty, also have a duty to anticipate the resultant problems which could occur from their hazardous waste trade practices. The absence of such meticulous caution could harm another's territory. So that, the neighbourliness and abuse of rights principles, for example, could in this sense also reiterate the same philosophy behind the precautionary and preventive principles discussed below.<sup>6</sup> In this regard, the proposals being made for the effective implementation of a model domestic law could also reinforce this aim of foresight which emanate from these principles. These proposals, coupled with these principles, could be linked to multilateralism in that the efficient regulation of toxic waste trade in the territory of Ghana for example, ensures that there are no spillovers to Côte d'Ivoire, which may also enact similar efficient laws for the same reason, and avoid toxic waste spillovers to Burkina Faso and other countries within the region. For the same reason, there should also be stringent toxic waste laws in South Africa and the African regional mechanisms.<sup>7</sup> Implementing such proposals

fundamentally seeks to avoid situations such as Sandoz<sup>8</sup> and Chernobyl,<sup>9</sup> thereby, reinforcing the need for multilateralism in this regard.

Multilateralism is further intertwined with the polluter pays principle, for instance. Here, when environmental disasters result from hazardous waste trading activity, states need to cooperate in order to provide reasonable redress for the affected victims. Such a requirement is in conformity with the 1972 Stockholm Declaration,<sup>10</sup> which requires international co-operation to compensate the victims of transboundary pollution, the 1992 Rio Declaration<sup>11</sup> which imposes a deeper commitment on the part of states while adopting this goal and the WSSD Declaration.<sup>12</sup> These clauses therefore require that states must develop national laws regarding liability and compensation for the victims of pollution and other environmental damage. They must also co-operate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction. Once again, strict liability regimes, in the three case study countries and African regional mechanisms, with specific terms of imprisonment or fines, reinforce the polluter pays principle and the need to adhere to a co-operative, multilateral approach in this regard.

Through this co-operative approach, states have also ensured that under the common but differentiated responsibility principle, they have a common duty to protect the earth from harmful environmental perils resulting from illicit toxic waste trading activity, while at the same time, considering the developmental needs of the less developing countries, and the required assistance to fulfil some of these obligations.<sup>13</sup> While striving to accomplish these aims, these states have formulated a series of multilateral conventions and arrangements which abound in the international sphere to govern these issues. These have led to the co-operative establishment of the Basel, Bamako, Rotterdam, and Stockholm Conventions, for instance, discussed after the relevant customary international law principles and international environmental soft law principles below.

### 3.1.1 Customary International Law

The discussion of soft law principles, soft law instruments and multilateral conventions which touch on hazardous waste trade and their transboundary movements also evokes certain customary international law principles such as the doctrines of good neighbourliness and the abuse of rights. It is noteworthy that though the abuse of rights

doctrine is yet to gain full acceptance in customary international law, this is also cited at this point to illustrate the extent to which one state using its territory to the detriment of another has generally been prohibited. Territorial sovereignty here must not be abused to the extent of infringing upon the sovereignty of others, in conformity with Dugard and Henkin, as discussed in Chapter 2.3.2 of this thesis.<sup>14</sup> Consequently, when one decides to trade in whatever substances one chooses in one's territory, this does not necessarily suggest that such trade be extended to substances which contaminate another's environment. So that, such principles of caution could certainly be a useful guide for the purposes of formulating a model law.

International principles are now discussed relevant to caution/care in toxic waste trade regulation. It is noteworthy that each of these principles, being a part of international law, is applicable in South Africa,<sup>15</sup> Ghana<sup>16</sup> and Côte d'Ivoire,<sup>17</sup> whose Roman-Dutch, Common Law and Civil Law jurisprudential systems respectively, fully reflect international law norms. It must be emphasised though that unlike the case of South Africa and Ghana where it is clearly stated that international law rules and norms are recognised in municipal legislation, in Ivorian legislation, there is no specific rule to this effect. All that has been said is that this government abstain from ratifying international treaties which contravene municipal legislation. Given the fact that this country has acceded to a convention such as Basel and ratified Bamako as indicated in this chapter, it could be reasonably inferred that it is committed to the principle of exercising its national sovereignty, in a way so as not to contaminate the environment of neighbouring and other countries.

### 3.1.1 (a) The Neighbour Principle

The first principle, the neighbour principle, places obligations on states to refrain from knowingly allowing their territory from being utilised for acts which contradict the rights of other states. This is embodied in the Latin maxim, *sic utere tuo ut alienum non laedas*, which was particularly enunciated in the case of the *Trail Smelter Arbitration*.<sup>18</sup> In this case, emissions of sulphur dioxide fumes from a smelter, the Trail Smelter Company, situated in Canada, was causing crop and property damage, located in the state of Washington, USA. This was from 1 January 1932 to 1 October 1937. The arbitral tribunal required that Canada take the necessary steps to abate pollution to avoid any future damage and to pay compensation for damage caused. This decision was based on the principle that:

“...under the principles of international law, as well as the law of the United States, no state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the property or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence”.<sup>19</sup>

The *Corfu Channel Case*<sup>20</sup> concerned damage and loss of human life from destruction caused to British warships by minefields in Albanian territorial waters. In this case, the court reaffirmed its commitment to the principle of good neighbourliness, by spelling out the duty of every state not to allow knowingly its territory to be used for acts contrary to the rights of other states.<sup>21</sup>

Principles 21 of the Stockholm (1972) and 2 of the Rio (1992) Declarations recognise the sovereign right of States to exploit their own resources and at the same time, entrust these states with the responsibility to ensure that activities within their jurisdiction do not cause damage to the environment and territory of other states beyond the limits of national jurisdiction.<sup>22</sup> In this sense, these principles could also be acknowledged as reflecting the philosophy of good neighbourliness in international law.

### 3.1.1 (b) The Abuse of Rights Principle

A second rule, the abuse of rights principle, refers to a State exercising a right either in a way which impedes the enjoyment by other States of their own rights or for an end different from that for which the right was created, to the injury of another States...<sup>23</sup>

Though this principle is yet to gain a firm acceptance as a customary international law principle, it is of importance here as it puts forth a lesson which seeks to outlaw states from using their territories for acts which are potentially dangerous to their neighbours. The abuse of rights was discussed in the *Chorzów Factory Case, Germany v. Poland*,<sup>24</sup> Germany brought a claim against Poland for an indemnity owed to the damage caused by Poland's illegal expropriation of a nitrate factory at *Chorzów*. This expropriation run contrary to the Geneva Convention of 1922 between Germany and Poland on Upper Silesia. Through the discussions in this case, the neighbourliness and foresight principles could be seen to be also reinforced and therefore, relevant for the purposes of this thesis.



The facts of this case were as follows: On 15<sup>th</sup> May 1922, the Geneva Convention was signed between Germany and Poland. This Convention pertained to the settlement of certain questions out of the cession of a part of Upper Silesia to Poland, while confirming (in Head II of Part I) the obligations of Germany and Poland within their respective portions of the Upper Silesian territory, to recognise and respect private rights acquired before the transfer of sovereignty, established (under Head II) in Polish Upper Silesia, a right of expropriation in favour of Poland in certain cases and under certain circumstances. Article 6 of the Convention provided thus: Poland may expropriate in Polish Upper Silesia, in conformity with the provisions of Article 7-23, undertakings belonging to the category of major industries including mineral deposits and rural estates. Except as stipulated in these clauses, the property, rights and interests of German nationals or of companies controlled by German nationals may not be liquidated in Polish Upper Silesia. In June 1922, Poland extended the operation of its law of July 1920, which declared null and void, certain rights acquired by private persons by deeds of alienations or other deeds, executed after 11<sup>th</sup> November 1918. This Polish legislation authorised the eviction of persons holding property under these deeds.

It was held *inter-alia* that: (a) according to the intention of the parties and on general principles of international law, the treatment accorded to German private property rights and interests in Polish Upper Silesia, was subject to the provisions authorising expropriation, to be the treatment generally accorded to aliens and based on the principle of respect for vested rights; (b) As any derogation from this principle, for instance by allowing expropriation, no further derogation could be presumed; (c) The legal design applied by the interested parties to the legislative/administrative act was irrelevant when they injuriously affected private rights contrary to the principles enunciated above and (d) However, the only measures prohibited were those which generally accepted international law declined to sanction in respect of aliens. They did not extend to expropriation leased upon reasons of public utility, judicial liquidation and similar measures.<sup>25</sup> In effect, Germany's illegal possession of the nitrate factory in *Chorzów* could be seen as constituting an abuse of rights which negatively affected Poland's interests.

The lesson which could be learnt from these principles which refer to incidents within the municipal setting, be extended across boundaries and applied to South Africa, Ghana and Côte d'Ivoire in the management of hazardous waste lies in the fact that the importation of toxic substances or the mismanagement of wastes, could not only affect

the environmental health of this country, but also its neighbours as well. If countries, under the principle of national sovereignty are implementing toxic waste trading and other activities and tackling environmental problems from a multilateral perspective, it seems reasonable that they should also be mindful not to abuse this sovereign right by inflicting harm on the territories of their neighbours and cause harm to the latter, as specifically enunciated in the *Trail Smelter Case*,<sup>26</sup> discussed above.

This is precisely what occurred in Sandoz and Chernobyl. In the case of the Sandoz disaster, one hazardous waste accident in Switzerland had serious environmental consequences in Germany and the Netherlands.<sup>27</sup> In Chernobyl, an accident which occurred at the Chernobyl nuclear plant in Russia contaminated the agricultural industry in neighbouring Finland, Poland, Denmark and Sweden, and negatively affected the tourist industry in Eastern Europe.<sup>28</sup> So that, in the case of the *Thor Chemicals*<sup>29</sup> for instance, the high level of environmental harm there could have extended to neighbouring countries such as Lesotho and Swaziland. Oil pollution of the sea in South Africa, could obviously result in transboundary movement and eventual marine pollution of Namibia, for example. Foresight and due diligence are therefore required in toxic waste trade, meaning that sovereignty must also not be abused in these matters. Not only is such an approach necessary in the generation of waste in a country, or the waste which is imported, but also, in the sort of toxic waste which is *exported*<sup>30</sup> and the manner in which it is done in free trade, so as not to negatively impact the environment of the countries of transit and import. This is reinforced in the model law and policy.<sup>31</sup> For the purposes of this thesis, an inextricable link could be said to exist between the doctrines of good neighbourliness and abuse of rights. This especially holds true with due regard to the fact that in this sense, both doctrines could translate to mean that the three case study countries be mindful that while exercising their sovereignty to engage in free trade in certain forms of toxic waste, this be done so as not to harm the environment of other countries.

From the above, it could be said that the principles in Chapter 3.1 are also greatly recommended for potential policy and regulatory reform, as well as the proposed model law in Chapter 6(B), through the incorporation of a principle such as the preventive and precautionary principles of foresight at municipal level. This then, is in turn a municipal

reflection of the Basel<sup>32</sup> and Bamako<sup>33</sup> Conventions' stipulations on the preventive and precautionary principles, for example, discussed below.

### 3.1.1(c) Liability of Offenders in Customary International Law

Since this Chapter dedicates itself to the protection of the environment from adverse effects of hazardous waste trade from legal perspectives, from the discussion of the abovementioned principles, it seems appropriate at this point to discuss the liability of offenders when they infringe upon these customary international law rules in this context. Though this was prevalent to some extent in the cases above, it must be further emphasised that this realm of customary international law does not provide a sufficiently comprehensive regime for dealing with these issues, specifically the problem of toxic dumping from the first world into the third world.<sup>34</sup> Hence, the establishment of more legally binding conventions such as Basel and Bamako for example, which reiterate the polluter pays and other principles. These have been done within the broader context of efforts by the international community to tackle these issues more effectively and still need to be improved upon however. One recommendation for this thesis is that a strict dispute settlement mechanism should be established as part of the UNEP Legal Regime to deal with toxic waste trade offences and other similar events in international environmental law. This proposed mechanism could be annexed as a protocol to the UNEP legal regime. The UNEP dispute settlement body would deal with inter-state disputes pertaining to toxic waste trade.

Where a state, A, has or has not ratified/acceded to Basel, but a company with the nationality of such a state exports toxic waste to another state, B, which is a party to Basel, state B can resort to the proposed dispute resolution mechanism of UNEP. Here, the company is held accountable through state A under Basel. The dispute becomes one between states as state A then assumes responsibility for the illegal trade act of that company. If a company is guilty of illegal trafficking in toxic waste, the guilty party should pay fines to the state of import, as well as additional damages to any people who were injured in the state of import. However, in the event that such an offence, whether intentional or negligent, does not cause any harm to the environment or any person or class of persons or to property within the state of import, this state or any

of its companies, still pays compensation to the other state, though it may be a lesser amount of money. This is to be determined by the legal body, depending on the offence. Officials from this proposed Dispute Settlement Body of UNEP's Legal Regime could work with representatives from the WTO's CTE for instance, and also, in strict collaboration with officials of the Bamako and NEPAD secretariats. This could be a significant improvement on the current situation, where the international environmental legal regime does not seem to be sufficiently equipped to deal with toxic waste trade disputes and offences. It seems that the UNEP could tackle these issues for the most part. The Basel secretariat has already demonstrated its willingness to work in collaboration with the WTO's Committee on Trade and the Environment, through seeking observer status during the latter's sessions.<sup>35</sup> Commendable though this proposal is, as suggested in Chapters 3.4.10 and 4.4.3 of this thesis, the UNEP could actually be entrusted with more authority, in the face of the recommended explicit environmental stipulations of the WTO. Advisably, this may be a better tool for helping attain the trade and environment balance, than UNEP just being an observer in toxic waste trade disputes, as toxic waste disputes happen to be crucial in the environmental realm. Accordingly, municipal systems must also stipulate punitive measures which ensure that offenders are held accountable for infringing these laws. The incorporation of a principle such as *locus standi*, also ensures liability on the part of offenders, since the model laws which are proposed will aid individuals whose rights are being affected/threatened to seek judicial redress.

### **3.2 International Environmental Norms Relevant to Waste Management and Trade**

#### **(a) Normative Principles**

##### **3.2.1 Sustainable Development**

The concept of 'sustainable development' has been heralded as a contemporary international norm which underpins environmental law.<sup>36</sup> This is indeed true with due consideration to the fact that almost every international, regional and national environmental activity, in current times, requires sustainable development as the cornerstone and guiding principle. Other activities such as those involving trade and development, as well as international conferences including the recently convened World Summit in Johannesburg, have focused on this principle. To this, it may be added that sustainable development could perhaps be seen as being at the apex of all the other soft

law environmental principles. Over here, the main idea is that, through the incorporation of principles such as the preventive approach which ensures clean and green production methods, the polluter pays principle which requires that parties responsible for environmental contamination clean up the contaminated land and the *locus standi* principle which grants individuals the rights to effective legal redress when their rights to life and property are threatened by harmful toxic waste trading activity, the ideal of sustainable development is attained as individual rights in the land are safeguarded now and for many years ahead. The land is also preserved in this sense. The discussions below illustrate this point.

According to the renowned Brundtland Report which was presented by Mrs. Gro Harlem Brundtland, (the then Norwegian Prime Minister, current Director-General of the WHO, Geneva, Switzerland) to the UNGA's World Commission on Environment and Sustainable Development, sustainable development is defined as:

"...development that meets the needs of the present without compromising the ability of future generations to meet their own needs"; Sustainable development also embodies two fundamental concepts. These are the needs concept especially, the basic necessities of the world's most impoverished people. This is of uttermost priority. Secondly, there is the idea of limitations. This is imposed by technology and social organisation on the environment's ability to meet present and future needs.<sup>37</sup>

This concept then, seems to be extensive and encompass a series of potential legal elements within it, which the Brundtland Report categorises into four classes as:

- (a) the need to preserve natural systems for the benefit of future generations, which reinforces the principle of intergenerational equity/the anthropocentric view;
- (b) the aim of exploiting natural resources in a manner which is "sustainable" or "prudent" or "rational" or "wise" or "appropriate" (the principle of sustainable use);
- (c) the equitable use of natural resources (the principle of equitable use); and
- (d) the need to ensure that environmental considerations are incorporated into economic and other development plans, programmes, and projects. This can be correlated to the principle of integration/environmental assessment, which has become a very important feature of environmental law.<sup>38</sup>

Simply put, sustainable development ensures that developmental activities be targeted to meet the needs of society's impoverished citizens, while at the same time, taking into account, the fact that such activity should not jeopardise the needs of future generations. From the preceding definitions and discussions on sustainable development, this concept could also be seen as being pivoted along three pillars. These are the protection of the earth, economic prosperity and social upliftment, all three of which must be integrated into toxic waste trading activities.

Even though sustainable development has been traced to the Brundtland Report of 1987 above, since the nineteenth century, states have always been mindful of the need to preserve natural resources in trading and other developmental activity, albeit not explicitly stated. From this perspective, Sands observes that this considerable degree of caution which nations have always attached to dealing with various natural resources seems to suggest that as far back as 1893, 'sustainable development' was an intricate feature of international legal relations. Consequently, sustainable development could be perceived as dating back to many retrospective years.<sup>39</sup>

However, after a period of initial scepticism from many spheres including the world's nations and the 39<sup>th</sup> Session of the UNGA, this concept finally gained a lot of approval in December 1987 by the UNGA and worldwide, is today the focus of many UN and international treaties and is the fundamental criterion used for almost every programme<sup>40</sup> including those of the Bretton Woods institutions. Similarly, Chapter 19 of Agenda 21, the comprehensive plan for global action adopted by the UNCED (1992, Earth Summit) requires national and international efforts to be geared towards the promotion of this principle in every area, such as hazardous waste trade. It is also incorporated into the legal regimes of certain municipal systems.<sup>41</sup>

More recent treaties/conventions which reflect the sustainable development principle include the CITES (1973), World Charter for Nature (1982) and the Rio Declaration (1992).<sup>42</sup>

The major role of this concept in the determination of important prospective environmental disputes and as an integral part of modern international law which balances the competing demands of development and environmental protection has not

been overlooked by the ICJ, as enunciated in the Case, *Concerning the Construction of the Gabčíkovo v Nagymaros Dam Project* (Hungary/Slovakia).<sup>43</sup>

South Africa's Bill of Rights chapter of the Constitution advocates the passing of legislative and other measures that secure "ecologically sustainable development". The NEMA for South Africa also specifically stipulated sustainable development to be an overarching goal and provided that "...the intention is to move from a previous situation of unrestrained and environmentally insensitive development to sustainable development with the aim of achieving an environmentally sustainable economy in balance with ecological processes".<sup>44</sup>

There is currently no specific reference to sustainable development in Ghanaian environmental legislation, even though officials dealing with environmental issues have reiterated a commitment to implementing this ideal.<sup>45</sup> The same claim holds true for Ivorian environmental law.<sup>46</sup> However, it may not suffice just to reaffirm this commitment verbally. Hence, in their trade and environmental laws, especially those on toxic waste trade, these two countries could emulate the trend set by South Africa. In this regard, the former could specifically include the need for sustainable development, in the same sort of language provided by South Africa's NEMA in the preceding paragraph.

To this end, this principle is important in providing a rationale for the proper disposal and trade, as far as hazardous waste is concerned. Supposing waste is not disposed of and traded in, with regard to sound environmental principles, and the developmental activities are just effected day in and day out without consideration for the environment, these toxic emissions may not only impact the present generation, but the future ones as well. The solution as indicated, is to conduct trade in a sustainable manner, for instance, operate waste recycling projects with due regard to the Basel Guidelines on the Environmentally Sound Management of Wastes. Through this, one ensures that trade does not detrimentally affect the environment.<sup>47</sup>

With this, sustainable development should be the focus of all trade and developmental activity, and for the purposes of this dissertation, hazardous waste trade. Such trading in environmentally permissible toxic waste should be conducted with a view to the attainment of sustainable development.<sup>48</sup> This is precisely the reason why certain

extremely dangerous substances such as PCBs and PBBs are rejected, while others such as propylene in plastics and lead in batteries are accepted, but subject to international guidelines and principles.<sup>49</sup> With income generation, employment creation and the other benefits, trade in hazardous waste could be a purposeful tool in the attainment of the objectives of sustainable development. Therefore, the preamble of the proposed model law specifically states this point.<sup>50</sup>

Sustainable development further ensures that instead of dumping used oils, lead, light bulbs and other similar substances, for example and whatever substance society uses, these items are sent back to manufacturers or collectors for recycling and re-trading purposes, and utilised again. The emphasis here is to depart from waste dumping on the land, to waste trade, within the context of sending such recyclable wastes such as used vehicle oil to other countries for reprocessing and re-use, while adopting prudent environmental principles during the process of export and reprocessing in the country of import. Through all these examples, economic income is derived from trade in hazardous waste which also creates jobs for people. The ecological base is also maintained because such recycling and trade is conducted while safeguarding environmental principles, and also ensures that waste is not stockpiled. Through the creation of jobs and income generation for people whose environment is also rid of waste, social progress ensured. The three facets of economic advancement, ecological soundness and social responsibility, which are then integrated in sustainable development, then reflect in toxic waste trade. International and municipal legislation which ensure the simultaneous incorporation of these three objectives into toxic waste trading activity is therefore needed.

### 3.2.2 The Precautionary Principle

*“For us the precautionary principle ...is an ecological and moral imperative. ...We do not have the luxury of waiting for conclusive proof, as some have suggested in the past. The proof, we fear, will kill us.”*<sup>51</sup>

This principle is embodied in the Rio Declaration which provides that “Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effectiveness measures to prevent environmental degradation”.<sup>52</sup> In this regard, it could be perceived to be particularly useful in guiding



the development and application of international environmental law, in the face of scientific uncertainty. In this sense, the precautionary principle could also be described as a principle of foresight. It essentially suggests a proactive approach by providing international legal action to tackle environmental problems without necessarily waiting for such adverse impacts to occur.<sup>53</sup> Such an approach may also be applied to national policy in trading activities, especially in substances such as toxic waste, where the unknown hazardous characteristics of a substance could prevent it from being imported into one's territory as a tradable commodity, rather than import it, with the occurrence of a subsequent discovery of its toxicological and ecotoxicological characteristics, when resultant harm would have already occurred.

Sands provides that this principle has existed for decades on the global level and has been reinforced in states such as Germany.<sup>54</sup> This holds true in the light of the 1969 Intervention Convention for instance, which allowed parties to undertake proportionate measures in order to prevent, mitigate or eliminate grave or eminent danger to coastlines from threat of oil pollution, taking into account of 'the extent and probability of imminent damage if those measures are not taken'.<sup>55</sup>

The basis of invoking this principle could be said to have assumed a different dimension in contemporary times than in the past. Today, the precautionary principle may be successfully established as a basis for rejecting certain imports including categories of toxic waste, without waiting for the otherwise detrimental impacts of such waste or other substances to occur. In the past, such evidence had to be successfully proven, as a condition for the precautionary principle. From this viewpoint, the 1974 Paris Convention implemented additional measures only when such scientific evidence had been successfully established and there was sufficient scientific proof of a potential serious hazard in the maritime area by that substance and the necessity of urgent action. However, by the 1980s, this position had changed and the precautionary principle featured in many environmental agreements without the need for the establishment for scientific evidence. The Stockholm Convention on Persistent Organic Pollutants (2001) discussed in Chapter 3.4.4 is a supreme example of the adoption of the precautionary approach. Without waiting for the adverse impacts of certain toxic chemicals, this Convention specifies categories of these chemicals which it bans from being exported and imported in international trade.<sup>56</sup>

The precautionary principle has been largely recognised and applied in many jurisdictions such as West German and also, in EU environmental law. For example, in the case of Greek restrictions on certain EU cases, the EU upheld Greece's ban of the import of frozen chicken infected with salmonella, thereby justifying Greece's approach to the adoption of the precautionary principle in disputes over internal barriers to trade.<sup>57</sup>

Certain African countries such as Zimbabwe and Zambia have also adopted the precautionary principle by rejecting the imports of food produced with Genetically Modified Organisms from some developed countries.<sup>58</sup>

Regarding its applicability to many other forms of international and national action, generally, the precautionary principle has often been criticised for excessive interference with human activity.<sup>59</sup>

The Basel Convention fully recognises the precautionary approach by requiring that states generating hazardous waste ensure that such wastes are disposed of in an environmentally sound manner and that the state of import or transit is adequately equipped to dispose of such waste.<sup>60</sup> Unless the exporting state has "reason to believe" that the importing countries are adequately equipped to treat such wastes in an environmentally sound manner, such exports must not be carried out.<sup>61</sup> This approach of foresight is advocated and obviously preferable, rather than shipping hazardous waste to another's environment, where the technical facilities for disposal are uncertain, environmental disasters result from such shipments, and then, cleaning up has to be effected thereafter. Here, the precautionary principle could be seen as helping protect the environment rather than interfering with human activity.

The precautionary approach is further reflected in the Rotterdam Convention which reaffirms its commitment to the environmentally sound management of toxic chemicals, including the prevention of illegal traffic in toxic and dangerous products. It thereby recalls principle 15 of the Rio Declaration and Chapter 19 of Agenda 21.<sup>62</sup> Rotterdam further reinforces the precautionary principle by stipulating that information on precautionary measures including hazard classification the nature of risk and the relevant safety advice, shall not be regarded as confidential for its (that is, the Convention's) purposes.<sup>63</sup>

In toxic waste trade regulation, African countries are also committed to enhancing this principle, through the 1991 Bamako Convention which *inter-alia*, exhorts parties to adopt and implement this approach by applying clean production methods when dealing with pollution, without waiting for scientific proof regarding such harm.<sup>64</sup> This root cause of such a requirement is evident in the potential harm which pollution could inflict on the human health and environment.<sup>65</sup>

The precautionary principle has gained increased importance not only in environmental treaties, but also, in international economic treaties, such as the WTO Agreement. Here, the WTO Agreement on the Application of Sanitary and Phytosanitary Measures provides that in cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available scientific information, including that from the relevant international organizations as well as from sanitary and phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure according within a reasonable period of time.<sup>66</sup>

In South African law, the NEMA, makes provision for this principle by stating that “a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions”.<sup>67</sup>

Ghana’s environmental laws do not make explicit mention of the precautionary principle.

As indicated in Chapter 5.6.5, Article 35.1 of Côte d’Ivoire’s *Loi No. 96-766* reinforces the precautionary principle in every action which could potentially affect the environment.

The precautionary principle would be certainly extended and recommended for the three case study countries and other developing countries of the region on the issue of regulating toxic waste trade. Take for example, a scenario involving a potential importation of substances from other countries, when it is not clear that these shipments contain PCBs, for example, which are well known to be highly toxic as indicated through scientific evidence in Chapter 6. It would be prudent for the Environmental Department,

in close collaboration with other Departments/Ministries such as Health and Agriculture, to be able to determine what these substances are. In case such a determination cannot be made, then clearly, such substances ought to be rejected instead of accepting substances which may actually be hazardous.

The approach of South African NGOs and other NGOs, as well as Ministries and Offices working on toxic waste in Ghana and Côte d'Ivoire could be said to reinforce the precautionary approach, in toxic waste trade regulation, and even, beyond, this approach, by stating their point that trade in every form of toxic waste should be forbidden. The problem here is that, this could lead to a situation where there is autarky, and certain substances which are needed on the market, become a scarce commodity. Here, the danger becomes protectionism. However, if applied in a transparent manner with all the possible disasters which could result and scientific evaluations provided for, the precautionary approach could enhance environmental protection. It may therefore be better to accept to trade in such substances, regulate such trade, establish scientific proof for rejecting certain categories of hazardous waste, but also, refuse such waste only when it seems likely that such a substance, after certain scientific evaluations, could pose a danger. On the other hand, even where a substance has not been deemed to be highly toxic under the Basel, Rotterdam, Stockholm and Bamako Conventions, if the three case study countries can also establish that the importation of a particular toxic substance would contaminate the environment, then, upon proof of such perils being inflicted, such substances may be refused.<sup>68</sup>

### 3.2.3 The Preventive Principle

As the name suggests, this principle, similar to a large extent to the precautionary approach, also anticipates problems and requires that necessary preventive action be taken to prohibit every activity which will result in environmental damage. Basically, it seeks to minimise such damage by requiring that action be taken at an early stage of the process, and possibly, before the occurrence of such damage. Considering that such an approach is also cost-effective and enables businesses to cut down on the amount of financial expenses required to dispose of waste or clean up pollution, this would be a better approach for these countries, rather than the polluter pays principle, discussed below. Hence, a number of binding and non-binding legal instruments advocate this

“forecast and prevent approach” to the “react and correct”, polluter pays approach discussed in Chapter 3.2.4.<sup>69</sup>

Customary international law reflects this principle in cases such as the *Trail Smelter* Arbitration. Here, the main idea was to conduct smelting operations in Canada in a manner so as to prevent noxious fumes emanating in Canadian territory, from adversely impacting parts of US territory, rather than cause such damage and then, have to clean up for such damage.<sup>70</sup>

International initiatives also reiterate the need for the preventive approach to industrial, developmental and other activity, rather than the polluter pays principle. Accordingly, the UNEP Montevideo Programme of 1981<sup>71</sup> as well as Agenda 21<sup>72</sup> require that the overarching aim of any waste-related activities should be the prevention or minimisation of the generation of hazardous wastes and their management in a manner which does not cause harm to human health and the environment. The attainment of this objective is perceived to be part of an integrated “cleaner production” approach. While providing for international and national production processes to incorporate this approach, Agenda 21 provides four areas, through which this aim can be accomplished:

- (a) Promoting the prevention and minimization of hazardous wastes;
- (b) Promoting and strengthening institutional capacities in hazardous waste management;
- (c) Promoting and strengthening international co-operation in this field;
- (d) Preventing illegal traffic in hazardous waste.<sup>73</sup>

The UNEP Dakar Declaration on the Phase-Out of Leaded Gasoline in Sub-Saharan Africa and the WSSD Declaration on the Phase-Out of Leaded Petrol in Sub-Saharan Africa,<sup>74</sup> could also be perceived to reinforce the preventive principle. This is by requiring the three case study countries and others of the continent, to import unleaded gasoline and petrol which do not contaminate the environment, rather than leaded forms of these substances which contaminate human and ecological health, and then, clean up the environment thereafter.<sup>75</sup>

The Basel Convention also adopts the preventive approach by exhorting parties to collaboratively develop and implement new low-waste technologies, with a view to

eliminating, as far as practicable, the generation of hazardous wastes.<sup>76</sup> The 1<sup>st</sup> and 2<sup>nd</sup> Basel COPs also reiterated this, by specifying that parties should promote cleaner production and technology transfer to further this aim.<sup>77</sup> The Convention further requires parties to ensure the availability of disposal facilities located within it; exports must be minimized.<sup>78</sup> The Basel Convention further promotes this principle by advocating that the exportation of hazardous wastes be carried out only if the exporting state is not adequately endowed with technical capacity and facilities to dispose of them in an environmentally sound and efficient manner, or in situations when the wastes are required as raw materials for recycling or recovery industries in the importing state, or in conformity with additional criteria, to be determined by the party states.<sup>79</sup> In a sense, the gradual shift in the ultimate aim of Basel, from regulating toxic waste trade between OECD and non-OECD countries, to banning such trade altogether through its Ban, could be seen as reinforcing this approach, as well.<sup>80</sup>

Other clauses of the Basel Convention which reinforce the preventive principles require parties generating hazardous waste to dispose of such waste as close as possible to their source of generation, reduce transboundary movement of such waste to a minimum consistent with their environmentally sound management and to minimise the generation of hazardous waste, in terms of both quantity and potential hazard.<sup>81</sup>

While advocating the need to pre-empt pollution by adopting clean production processes without waiting for scientific evidence, as advocated by the precautionary principle above, the Bamako Convention entrusts the Secretariat with the mandate of systematically reviewing issues relating to the prevention of polluting technologies into Africa and also, making available reports of COPs on this matter.<sup>82</sup> The Convention further requires that member states promote within their respective jurisdictions, clean and green production methods and processes, during entire product life cycles including raw material selection, extraction and processing, material transport during all phases and industrial and household usage.<sup>83</sup>

South African legislation reinforces the preventive principle. On the basis of its NEMA which states “that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimized and remedied”, Glazewski opines that this principle also reflects sustainable development here.<sup>84</sup> South Africa’s commitment to

the preventive principle is further reflected in the requirement of the NEMA which holds that waste be avoided altogether, or where it cannot be altogether avoided, it should be minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner.<sup>85</sup>

The South African Pietersburg (Polokwane) Declaration is another measure which seeks to promote this principle of "prevention being better than cure" in tackling hazardous waste disposal and trade. This, it seeks to accomplish, by stipulating twenty-eight practical steps in this regard. These steps include the following: Avoid the pollution of waste resources and the social impacts caused by the disposal of waste; Reduce the generation of all types of waste; Utilise cleaner production technologies and methods of production and Set waste reduction targets.<sup>86</sup> As far as toxic waste is concerned, in this country, waste minimisation clubs have been currently established, to encourage business and industrial companies to reduce the amount of waste generated at source, instead of creating waste and then, cleaning them up. Such proactive measures could be seen to be in conformity with the requirements of the NEMA then.

Ghana's adherence to this principle is evident in its requirement for an Environmental Impact Assessment, when, *inter-alia*, undertaking activities in agricultural chemicals as well as soaps and cleaning compounds, wholesale waste materials and industrial waste such as copper and aluminium.<sup>87</sup> However, for specific activities which touch on toxic waste regulation, no work has been undertaken in this regard. So that, such proposals are put forward in for the model law in Chapters 6.

The fact that the law of Côte d'Ivoire on toxic waste was enacted prior to the Basel and Bamako Conventions, shows this country's commitment to preventing environmental perils resulting from illegal toxic waste practices, rather than having to clean up after the misdeed has been committed. Private Groups such as the CITAF and the ASH Groups, work in Abidjan, to deal with this problem, but not within the country, where indiscriminate dumping of all forms of waste worsens each day.<sup>88</sup> Hence, specific guidelines should be elucidated for managing toxic waste in an environmentally sound manner, in different municipalities such as Blokosso, Anono and every other part of the country, for various industrial and other processes, which are likely to generate hazardous wastes.

On the other hand, given the inevitability of hazardous waste generation from every human activity, industrial and other sectoral processes should incorporate the cleanest and greenest production methods, and be made responsible to clean up for the minimal waste which they generate. This leads to the polluter pays principle, discussed below.

#### 3.2.4 The Polluter Pays Principle

Basically, this principle embodies the philosophical idea that the polluter, and not the society at large, should bear the costs of implementing measures decided upon by public authorities as necessary to ensure that the environment is in an acceptable state. The Rio Declaration discusses this policy in the following terms:

“National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment”.<sup>89</sup>

The Basel<sup>90</sup> and Bamako<sup>91</sup> Conventions also impose responsibility on none other but the parties who caused a toxic waste dilemma, to be responsible for the clean up and necessary costs involved in compensation to affected victims.

Sands states that even though this principle is reflected in a number of treaties such as the European Community Treaty which requires action by the Community to be based on the principle, there is no clear indication on how it is to be given effect.<sup>92</sup> However, discussions in this sub-chapter and also Chapter 6 provide some guidelines on how this principle reflects in municipal legal regimes and could also be given effect in national policy regulating toxic waste trade for the model law being proposed in this dissertation.

The South African NEMA includes the polluter pays principle thus: “the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, must be paid for by those responsible for harming the environment”.<sup>93</sup>

Ghana is yet to fully incorporate the polluter pays principle into its environmental laws.



As discussed in Chapters 5.6.4 and 5.6.5, Articles 35.5 of *Loi No. 96-766*, (1996) and 6 of *Loi No. 88-651* (1988) make the same sort of provision as the South African NEMA, as far as the polluter pays principle is concerned.

With such a principle, people will obviously be mindful of the sort of activities they generate and what kind of wastes they produce, since they will be required to pay for the cost of the resultant damage from their activities on their territory and neighbouring territories as well. Multilateralism is required in this regard. This principle could be promoted together with greater penalties such as imprisonment, when the damage involves the loss of human health. The reason behind this is that rich companies for instance, could just resort to all manner of pollution-causing activity, if they only have to pay for it after the damage has occurred. On the other hand, penalties such as imprisonment to back such a policy could be more effective. It is therefore necessary that the model laws on toxic waste trade in these three case study countries, while stipulating the punitive measures to be imposed on offenders, incorporate this principle. Here, offenders do not only forfeit their licenses used in manufacturing operations, or serve long-term imprisonment sentences if they do not adhere to the more preferred preventive/precautionary principles. Additionally, they should be made to pay for the cost of repairing the damage inflicted on the environment.

### 3.2.5 Legal standing (*locus standi*)

For decades, litigants seeking to bring actions on behalf of the animate or inanimate environment had to satisfy the requirement of the *locus standi* principle by essentially demonstrating that they had a direct and personal interest in a matter over and above the ordinary member of the public to bring an action presented an obstacle to many litigants wishing to bring such actions. Hence, Sands opines that in the Chernobyl disaster, the limited availability of remedies for breaches of environmental standards and insufficient obligations under national legal systems (compounded with restrictions on the provision of information on Soviet citizens) prevented genuinely aggrieved parties from the appropriate legal redress.<sup>94</sup> However, the existence of class actions could have rectified this situation. This basically entails bringing court claims by large numbers of people for mass harm to the environment or public health.<sup>95</sup> Given the complexity and costliness of

litigating environmental cases, class actions could then be said to be essential tools to facilitate environmental actions when environmental rights have been infringed upon.

Furthermore, given the fact that the effects of toxic waste affect the very existence of people's lives and the ecological base, it is understandable that *locus standi* has now been incorporated as an environmental right in certain municipal regimes. An example of such a regime is the 1996 constitution of South Africa,<sup>96</sup> which does not include the availability of class action however.

As indicated above and from discussions such as those in Chapters 2.7.2 (a) as well as 5.4, environmental issues such as toxic waste mismanagement and improper disposal can cause deaths in people, or serious health disorders. It also affects people's rights in land and other forms of the ecological base. The whole issue of toxic waste then becomes a human rights issue, as shown in Chapter 3.2.7 below. If environmental protection is truly a human rights issue, then affected individuals should be assisted to seek legal compensation when such rights are threatened. Therefore, it is further recommended that the proposed laws on toxic waste trade within NEPAD, Bamako and the African regional conventions also incorporate the *locus standi* principle, together with that for class action. In the case of Bamako, these could be annexed as a protocol, reiterating the Chapters of the Charter of the OAU on environmental protection, the African Charter for Human and People's Rights (1981), Chapter IX on Environment and Development, that is Articles 266 to 270 of the Lagos Plan of Action for the Economic Development of Africa (1980-2000), and other Recommendations adopted by the OAU on the environment.<sup>97</sup>

Environmental laws of Ghana are yet to include these principles.<sup>98</sup> The same holds true for Côte d'Ivoire.<sup>99</sup> However, these two countries could follow such trends, and together with South Africa, specifically incorporate *locus standi* and class action as part of the environmental policy, and for the purposes of this thesis, the model law regulating toxic waste trade within their respective municipal regimes.

### 3.2.6 Prior Informed Consent (PIC)

This fundamental international environmental principle, which has gained importance in the international principles governing hazardous waste management has been defined in the Rio Declaration thus:

“States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.”<sup>100</sup>

While requiring the permission of the importing state as a pre-requisite to the potential shipments of toxic waste, due diligence and foresight are demanded hereby, bringing to mind the preventive and precautionary approaches. For example, both the Basel<sup>101</sup> and Bamako<sup>102</sup> Conventions stress the need for the exporting state to gain prior approval in documented, lucid, comprehensive language from the relevant authorities within the state of import, before proceeding with such a shipment.

The PIC principle is so important that it forms the basis of the Rotterdam Convention, by requiring that hazardous chemicals and pesticides that have been banned or severely restricted in at least two countries shall not be exported unless explicitly agreed by the country of import.<sup>103</sup> In conformity with this requirement, at its inception in 1998, the Rotterdam Convention listed five industrial chemicals and twenty two pesticides including Aldrin, DDT, Dieldrin, HCH, Lindane, Mercury Compounds, PCBs and others, with the possibility of future additions.<sup>104</sup>

In 1999, this PIC list was extended to encompass binapacryl, a fungicide, which could cause nausea, vomiting, abdominal pains, diarrhoea and breathing difficulties. The PIC list was further extended to encompass toxaphene, widely known by its trade name, Camphechlor, an insecticide and rodenticide, which highly persists in the environment and causes thyroid tumors and cancer. At the moment, the UN recommends that given the potentially destructive effects of five additional forms of cancer-causing asbestos to human life, the PIC list be further extended to cover these substances. This has been advocated for, along with the pesticides DNOC, parathion, a severely hazardous pesticide mixture of benonyl, thiram and carbofuran and the two lead additives, namely,

tetraethyl and tetramethyl lead, which are used as additives in gasoline and pose a serious health risk, especially to children.<sup>105</sup>

When applied by the three case study countries in controlling toxic waste trade at their respective municipal levels, the PIC procedure could be interpreted as the necessary permission which must be granted by the Inter-Agency Permit Scheme before proposed imports and exports of toxic waste can be carried out.<sup>106</sup>

In implementing the PIC principle in hazardous waste trade, ecolabelling and environmental labelling may be recommended for the three case study countries as one useful and practical environmental tool for effectively regulating the importation of toxic waste. Ecolabelling is "the use of labels in order to inform consumers that a labelled product is environmentally more friendly relative to other products in the same category, noted that these labels are granted by a government or privately sponsored agency to (voluntary) applicants from enterprises" ... and "are conceived as a market-oriented instrument for environmental policy as they establish no generally binding requirements or bans."<sup>107</sup> Eco-Labelling governments have encouraged and even required the utilisation of environmental labelling and ecolabelling schemes in companies' practices, as a means of producing better quality environmentally friendly goods and thus gaining a greater degree of market accessibility to others' markets. Environmental labelling schemes have been classified as the "voluntary granting of labels by a private or public body in order to inform consumers and thereby promote consumer products which are determined to be environmentally more friendly than other functionally and competitively similar products".<sup>108</sup>

This, for the three case study countries and other developing countries, would also ensure that when importing hazardous chemicals, much information is known about the toxicological characteristics of a given product, as well as all other qualities, lest they import substances which may be dangerous, as in the Kennedy Round 2 scenario, where all manner of obsolete chemicals have been unknowingly imported from China and Japan into Ghana.<sup>109</sup>

### 3.2.7 A Human Right to a Decent Environment

Realising the need for the world's populace to live in a decent environment, international environmental law and municipal laws have gradually cultivated a fine relationship between environmental rights and human rights. This seems reasonable because living in areas which become contaminated by another's activity without due regard for one's health and safety, for example, impinges on one's freedom of enjoying his/her property. Insufficient disposal of hazardous waste can even force people to relocate from their homes owing to contaminated atmosphere and ecological destruction where they reside, in the pursuit of shelter elsewhere. This obviously deprives them of their basic rights of enjoyment in the land in which they strictly have rights to. Incidents such as Bhopal, Sandoz and Thor can also result in one's death. Even when their health is impaired owing to the environmental perils on their land which they can no longer use, this is tantamount to a deprivation of their human rights to enjoy the land which is now lost in this sense. From such perspectives, the inextricable link between environmental and human rights issues is not uncommon in certain international treaties and conventions, for example.

The 1989 Hague Declaration on the Atmosphere also states that environmental perils affect the right of human beings to live in dignity in a viable global environment. So that, the community of nations, alongside present and future generations, must do everything possible to preserve the quality of the atmosphere.<sup>110</sup> Hence, the Draft Legal Principles of the Experts Group of the World Commission on Environment and Development 1986 also reinforce this principle, and in this regard, serve as the first legal instrument to propose a right to a healthy environment.<sup>111</sup> Within the African Regional context, the African Charter on Human and People's Rights recognises the individual rights of Africans to a decent and healthy environment.<sup>112</sup>

South African law also adheres to this position by its Bill of Rights Chapter in the 1996 Constitution and the NEMA.<sup>113</sup> These environmental rights obviously include toxic waste issues which form part of environmental matters and must be explicitly stipulated in the model law on toxic waste trade.

Ghanaian laws are yet to incorporate this principle in their constitution and municipal environmental laws, and also, the model toxic waste regime.

However, in the case of Ivorian *Loi. No. 96-766*, this has already been realised as a constitutional right, while also imposing a duty on individuals to keep the environment clean.<sup>114</sup> This responsibility is also entrusted to the community at large.<sup>115</sup> Consequently, these should reflect in the model law on toxic waste. The recognition of individual's rights to a decent environment could be linked to the *locus standi* principle in toxic waste trade. For example, it seems in order to claim that if one is entitled to a decent environment, then, when such an environment is threatened by toxic waste dumping and its attendant perils, the individual must be entitled to effective judicial redress. This principle could then be said to be ultimately linked to the principle of environmental justice which basically entails the fair and meaningful treatment of all people regardless of race, colour, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.<sup>116</sup>

### 3.2.8 Intergenerational Equity

This principle is one of the integral components of the concept of sustainable development, discussed in Chapter 3.2.1. This notion, which requires that human beings protect the environment for the benefit of present and future generations, is reiterated in a dissenting opinion pertaining to the ICJ's Advisory Opinion on the *Legality of the Treaty on Nuclear Weapons*: "when incontrovertible scientific evidence speaks of pollution of the environment on a scale that spans hundreds of generations, this Court would fail in its trust if it did not take serious note of the ways in which the distant future is protected by present law. The ideals of the United Nations Charter do not limit themselves to the present, for they look forward to the promotion of social progress and better standards of life, and they fix their vision not only on the present, but on 'succeeding generations'. This one factor of impairment of the environment over such a seemingly infinite time span would by itself be sufficient to call into operation the protective principles of international law which the Court, as the pre-eminent authority, empowered to state them, must necessarily apply."<sup>117</sup>

The South African constitution also requires that its citizens adhere to this principle, in order to ensure that future generations benefit from environmental protection.<sup>118</sup> It is yet to be explicitly incorporated into Ghanaian<sup>119</sup> and Ivorian<sup>120</sup> environmental law.

The relevance of such a principle to the proper management of hazardous waste as reflected in the proposed municipal law on this issue lies in the fact that when African countries, through the Bamako Convention for example, ensure that their territories are not used as dumping grounds for toxic waste from the first world, then indeed, their lands are being well-protected now to the benefit of many prospective generations in the years ahead as well. This principle is a vital component of the sustainable principle which has been explicitly stated in the preamble to the model treaty and law of this thesis in Chapter 6 on policy recommendations. Here, inter-generational equity is also discussed together with sustainable development.

### 3.2.9 The Public Trust Doctrine

This principle, though it has great potential, still needs time in order to be discerned how it will work in practice.<sup>121</sup> Theoretically, the idea that property not belonging to anyone should belong to the public at large seems to be quite in order. "Public Trust" has its roots in the Roman law principle of *res extra commercium*, that is, certain property is classified as not being capable of private ownership and belongs to the people, that is, *res universitas*.<sup>122</sup> The public trust doctrine has become very popular in the US where after being initially applied to navigation, water-related commerce and fisheries, has been extended to cover national parks, inland lakes and wildlife.<sup>123</sup>

The public trust doctrine is reflected in the South African NEMA which provides that "the environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage".<sup>124</sup> This principle is yet to be fully developed in Ghanaian<sup>125</sup> and Ivorian<sup>126</sup> law.

Though the implementation of this principle in pragmatic terms is still not clear, in a sense, it could be perceived to provide a foundation for the *locus standi* and human rights principles. The main philosophy here would be that if the government holds the land on behalf of its citizens, then, arguably, the environment should be used to benefit these people. When there are any acts to the contrary, such as pollution from toxic waste mismanagement, then people are entitled to seek legal action in case such rights are infringed upon. So that if toxic waste imports were to negatively affect the rights of people living in a specific community, through polluting/contaminating their rivers,

causing health deficiencies and deaths amid their animals and livestock, or even the human beings themselves, they should be entitled to legal action if such imports cause them environmental evils. From this perspective, the public trust doctrine could be seen to boost the *locus standi* and human rights principles and is important for the model policy and law on toxic waste, in Chapter 6. It should thus reflect in the policy recommendations and model law.

### 3.2.10 Common but Differentiated Responsibility

Basically, the core elements of this principle are enshrined in the Rio Declaration,<sup>127</sup> which in this regard, provides that: (a) states have common and general obligations to work in close co-operation while developing, administering and interpreting the new ever-growing fields of international environmental law; (b) they must also acknowledge the different developmental stages and consequent special needs of developing countries, with respect to these duties.

To a large extent, this principle could be perceived to evoke certain principles such as the General System of Preferences whereby developing countries benefit from trade concessions from developed countries in the course of free trade.<sup>128</sup> However, in international environmental law, this extends to favourable considerations being accorded from the more powerful to the less developed, as far as environmental responsibilities are concerned, owing to the financial and developmental handicaps which are faced by developing countries. Given the meagre technological facilities for the disposal of hazardous waste in these three countries, the implementation of this principle in toxic waste trade is very timely, as developing countries could benefit from assistance from developed countries, until such time that they are adequately endowed to deal with toxic waste disposal and treatment.

Consequently, the Rotterdam Convention exhorts parties with more advanced programmes to provide technical assistance to developing countries and countries with economies in transition, by taking into consideration, their lack of adequate infrastructure and insufficient capacity to manage chemicals. Such technical assistance is necessary so as to enable these less developed countries to abide by the regulations of this Convention. More advanced countries are required to provide technical assistance in training, development of infrastructure and capacity-building to manage their chemicals



throughout their life-cycle.<sup>129</sup> Therefore, it has been observed that this Convention seeks to protect many farmers in developing countries as they are not adequately equipped to handle highly toxic pesticides safely.<sup>130</sup>

In this regard, under the Basel Convention, the willingness of the government of France to assist Francophone African countries to combat illegal shipments of toxic waste into their territories, through funding for more training of personnel and provision of national capacity, as expressed at the Sixth Basel COP, in December 2002,<sup>131</sup> could also be seen to reinforce this principle. This is because owing to financial constraints, this particular Centre has not been able to meet its envisaged targets, as originally planned. With the financial problems encountered by the Bamako Convention in its enforcement,<sup>132</sup> a similar approach from certain countries of the first world may then be timely.

Furthermore, the Africa Stockpiles programme, a new initiative, through which developed countries, international agencies such as UNEP, UNDP and FAO help African countries to get rid of all obsolete pesticides and send them back to Europe for destruction, could also be seen as reinforcing this principle.<sup>133</sup> In the absence of such an initiative and such assistance, having to send these substances back to Europe may be a difficult task for these less powerful countries who are already saddled with all sorts of financial problems, *inter-alia*.

The importance of this principle cannot be overlooked, especially as it enables the three case study countries and other developing countries to fulfil their obligations of regulating hazardous waste trade at the international level. This ultimately enables their municipal systems to be enacted in accordance with the principles of this Convention. Nevertheless, even if this is a worthy policy, it may also be timely for policy makers to reflect on how to empower this group of countries to fulfil these obligations, rather than the continued pattern of "dependency" situation, which seems to arise from the common but differentiated responsibility situation. However, within the strict model law/policy, this principle may not be relevant.

## (b) Implementation

### 3.2.11 Local Level Governance

The main philosophy behind this principle is to abandon past practice of simply stipulating laws at national level and requiring that they be abided by. The approach being advocated by this principle is to empower local communities, especially, within the African context, to manage their natural resources. However, this thesis deals with toxic waste trade regulation. This necessarily requires strengthening at municipal level and would not require the involvement of traditional authorities. Hence, though this principle is reflected in the management of natural resources by local communities of Stinkwater in South Africa for example, and certain local projects for the management of natural resources in Ghana, for instance, it is not really relevant to the model law on toxic waste trade.<sup>134</sup>

### 3.3 International Environmental Law Problem of Illegal Trade in Hazardous Waste

The problem of hazardous waste stems from the increment in human and industrial activity, as well as in every other sectoral activity. Given the fact that waste is an inevitable by-product of every human activity, such increases also mean more voluminous quantities of waste to dispose of. As at 1947, worldwide estimation of hazardous waste generation amounted to approximately five million metric tonnes. However, total estimates of waste generated today have increased to approximately 350 tonnes.<sup>135</sup> Developed countries generate more wastes than developing countries, sometimes with disastrous consequences on environmental and human health, as evidenced in Chernobyl, Sandoz, Seveso and Love Canal. These disasters even extended to neighbouring countries around those wherein these incidents occurred. These led to the formulation of stringent laws to tackle this issue, with the result that developing countries became the target for dumping these substances, in exchange for financial benefits. Toxic waste has now become an item of trade on the global market.<sup>136</sup>

Conventions such as Bamako and the Basel Ban have sought to ban such forms of trade, while others such as Basel, Rotterdam and Stockholm regulate such trade. The basic idea here is that subject to environmental stipulations under these international legal regimes, importing and exporting certain forms of toxic waste trade could be legally permissible. In the absence of these guidelines and environmentally unsound practices, such toxic waste trade becomes illegal as it could cause environmental and other disasters to the country of import, countries in transit and neighbouring territories. At the same time,

certain countries also desire importing certain forms of waste, under national sovereignty, for the furtherance of economic activity.<sup>137</sup> From these discussions, it is evident that:

- (a) Trading in toxic waste without adhering to sound environmental guidelines can negatively affect other territories; and
- (b) Illegal trade in toxic waste also causes other forms of environmental problems such as pollution and destruction of ecosystems as well as harm to human health.

The degree to which laws effectively govern toxic waste trade activity within the international, regional and municipal contexts is therefore very important.

### **3.4 Global Responses to Problem of Illegal Hazardous Waste Trade: International Law Overview of Managing Waste Movements**

#### **(A) Treaties/Conventions**

##### **3.4.1 Basel Convention on the Transboundary Movement of Hazardous Waste**

###### **3.4.1 (a) Historical Development**

As reinforced in its preambular clause, the basic rationale for establishing this Convention is to protect the environment from the harmful effects which could occur from the generation and management of hazardous waste.<sup>138</sup> It is noteworthy though that regarding the shipment of transboundary wastes into Antarctica, there is a complete ban.<sup>139</sup> Contrary to popular belief which holds that the Basel Convention seeks to ban the transboundary movement of waste altogether, it must be stressed that this Convention rather aims at regulating such waste.<sup>140</sup> As discussed in this sub-chapter, there is now a Ban Amendment to this Convention, drawing it closer to the aims of Bamako in banning toxic waste trade altogether between industrialised and developing countries. The Secretariat of Basel observes that as at 9<sup>th</sup> December 2003, there were 41 out of the 62 required ratifications for this Ban Amendment to be effective, implying that the Ban Amendment is not yet in force.<sup>141</sup>

Owing to the risk and increasing threat posed by these wastes and their transboundary movement to human and ecological health, the increased generation and complexity thereof, such regulation in toxic waste trade is necessary, as stressed in the preamble, and a ban, perhaps, required. On the other hand, it may also be suggested that under the principle of national sovereignty,<sup>142</sup> the three case study countries are entitled to decide

on which categories of waste they wish to import or export for economic development, and which categories of waste they wish to ban *in toto*, without interference whatsoever from any foreign country. An acknowledgement of this fact is made in the preamble to the Basel Convention which entitles States to the sovereign right to legitimately regulate the entry or disposal of foreign hazardous wastes and other wastes in its territory.<sup>143</sup> In the present circumstances, the best approach for the three case study countries to toxic waste trade might be to ban such trade under Bamako and the Basel Ban Amendment when the latter comes into effect, and only accept substances from the first world, based on strict environmental assessments and evaluations. An adherence to the Basel Convention may otherwise have sufficed. To this end, the necessity for international co-operation between parties while adopting national mechanisms to manage their hazardous wastes in an environmentally sound manner must not be underscored.

Therefore, African and developing country governments, in the 1970s and 1980s, opposed many instances of toxic waste dumping into their respective territories from the first world. An example of such trends is the notorious dumping of toxic waste comprising PCBs, polyurethanes, ethyl acetate formaldehyde and methyl melamine from Italy to Koko, Nigeria, in 1987, which led to the OAU Resolution prohibiting toxic waste in 1988.<sup>144</sup> Other cases in point are the purported dumping of approximately 500,000 tonnes of pharmaceutical and industrial waste from the Swiss-based Intercontract company to the marshy and porous area around Farim in Guinea-Bissau,<sup>145</sup> similar proposed contracts between Intercontract and Djibouti and Senegal<sup>146</sup> as well as the proposed importation of 5 million tons of toxic waste from a private Swiss businessman to the Angolan Government. The businessman was also to construct a toxic burning industry in the country.<sup>147</sup>

Consequently, in 1982, the Governing Council of UNEP<sup>148</sup> adopted the Montevideo Programme for the Development and Periodic Review of Environmental Law in Paraguay, which sought to devise meaningful solutions to resolve these alarming increments in toxic waste trade/dumping from the industrialised world into developing countries and resultant complaints thereof, from the latter category of countries. These Guidelines basically directed UNEP to develop legally binding principles for managing hazardous waste. After that, in 1985, the FAO<sup>149</sup> published its Guidelines on Pesticide Control which specifically stress the need for PIC on the part of importing countries of

pesticides or hazardous waste, before the exporters send such substances to the latter group of countries. The next important development subsequent to these two events was the meeting of the UNEP Working Group of Legal and Technical Experts in Cairo, Egypt in 1987. This meeting concluded the non-binding Cairo Guidelines on Environmentally Sound Management of Hazardous Wastes that year, adopted as Decision 14/30 by the Governing Council of UNEP in 1987.<sup>150</sup> The importance of these Guidelines lay in the fact that they were developed with the aim of assisting States in preparing appropriate bilateral, regional and multilateral agreements as well as national legislation for managing hazardous wastes in an environmentally sound manner. Then, from 13 to 17 March 1989, the Working Group of Legal and Technical Experts of UNEP convened its fifth session in Basel, Switzerland, to finalise the drafting of the anticipated multilateral Convention on the Control of Transboundary Movements of Hazardous Wastes. These meetings and declarations culminated in 1989 with the formation of the Basel Convention which was obviously developed and initiated by UNEP and to a large extent, the FAO as well.<sup>151</sup>

#### 3.4.1 (b) Fundamental Aims and Objectives

The Basel Convention essentially seeks to equip countries with the requisite technological facilities and national capacities to regulate toxic waste trade; manage such wastes in an environmentally sound manner and ensure that importing countries give their prior consent before such wastes are sent into their territories. It therefore stresses the need for prior informed consent and environmentally sound management of hazardous waste, alongside many other requirements, thereby incorporating some of the main elements of the earlier meetings which led to its establishment. Against this background, the Basel Convention seeks to:

- (a) Ensure that the importing country or country through which the hazardous waste will transit, accords its prior consent to any prospective shipments of toxic waste;<sup>152</sup>
- (b) Ensure that the transboundary movement of hazardous waste is reduced to the minimum extent possible in an environmentally sustainable manner, and that such transboundary movement is conducted in a way which does not harm the environment;<sup>153</sup>

- (c) Ensure that where importing countries cannot dispose of hazardous waste, they are sent back to the exporting parties, within 90 days after the state of import gives notice;<sup>154</sup>
- (d) Minimize the generation of hazardous wastes and other wastes, in terms of both quantity and potential hazard;<sup>155</sup>
- (e) Ensure strict control over the movement of hazardous wastes across borders as well as prevention of illegal traffic;<sup>156</sup>
- (f) Treat and dispose hazardous wastes and other wastes as close as possible to their source of generation in an environmentally sound manner;<sup>157</sup>
- (g) Prohibit shipments of hazardous wastes to countries lacking legal, administrative and technical capacity to manage and dispose of them in an environmentally sound manner;<sup>158</sup>
- (h) Assist developing countries and countries with economies in transition in managing the wastes which they generate in an environmentally sound manner.<sup>159</sup>

As evident from discussions related to the Bamako Convention, these aims bear similarity to Bamako, apart from the main difference in the mandate of regulating such trade in the case of Basel and prohibiting such trade in the case of Bamako, as indicated already in the introduction to this thesis.

#### 3.4.1 (c) The Total Ban Amendment

At the first meeting of the COPs in December 1992, many Basel members requested the prohibition of hazardous waste shipments from industrialised countries to developing countries. This really shows a dissatisfaction on the part of many developing countries to Basel. As illustrated in Chapter 3.4.2(a), this is the main factor which led to the formation of the Bamako Convention. In March 1994, the second meeting of the COPs of the Basel Convention responded to this request by the adoption of Decision II/12, which prohibited all transboundary movements of hazardous wastes destined for recycling and final disposal from the countries of the OECD to non-OECD countries.<sup>160</sup> According to this Decision, while the ban on hazardous wastes for final disposal was intended to take place with immediate effect, that on the transboundary movement of hazardous wastes destined for recycling or recovery operations was to be phased out by 31 December 1997 and prohibited as from that date.<sup>161</sup>

However, some thought might also be given to the issue of whether a particular hazardous waste becomes less toxic, simply on the basis that it is recyclable and not destined for final disposal. So that a better approach may have been to simply ban all the most hazardous forms of toxic waste, and then, continue to regulate those that were less toxic, whether destined for recycling or for final disposal.

The Third COPs in September 1995 unanimously approved of Decision II/12, thereby translating this decision into an amendment to the Convention. To this end, this Ban Amendment, adopted in 1995 as Decision III/2 by this COPs, reinforced and gave effect to Decision II/12.<sup>162</sup> The new Amendment also modified Decision II/12, by inserting a new article into the Convention and creating a new Annex VII. The article prevents the movement of hazardous waste from OECD countries, the EC and Liechtenstein to non-OECD countries.<sup>163</sup> The Ban Amendment came into immediate effect for wastes destined for final disposal operations and also, by 31 December 1997 for hazardous recycling operations pending ratification by at least 62 of the Parties present at COP3, that is, three quarters of the members of the COP3.<sup>164</sup> By July 2004, there were 49 ratifications required for the Ban Amendment to be effective.<sup>165</sup>

Though these developments obviously bring the Convention closer to the same objectives of Bamako, if in reality, it cannot be enforced, then it becomes a white elephant which can actually not serve the real objectives it sets out to accomplish. The transboundary movement of hazardous waste from OECD countries into territories of non-OECD states can then persist in international trading activity. However, the number of ratifications, as at 1998 and 2004, for example, has increased, meaning that with time, it is likely that the Ban Amendment will be fully implemented.

#### 3.4.1 (d) Liability and Compensation

At its inception, Basel lacked any provisions pertaining to liability. However, an Ad Hoc Working Group of Legal and Technical Experts, established for this purpose, has produced a Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal. This Protocol was adopted at the Fifth COP, convened in December 1999.<sup>166</sup>

The fundamental provision of this Protocol holds that the private actor responsible for wastes causing injury bear remedial responsibility for such harmful results.<sup>167</sup> In this sense, this stipulation could be likened to the polluter pays principle<sup>168</sup> and is logical since the party responsible for causing pollution should bear the costs of damage repair, and not the State nor the parties whose rights are affected. Parties are required to establish an international fund to promptly address emergency situations. This fund also serves to provide compensation in the event of inadequacy of compensation under Article 4.<sup>169</sup> Under the principle of common but differentiated responsibility,<sup>170</sup> it may be suggested that developed countries and the international agencies set up this fund, until such time that developing countries have been able to improve their financial needs and become empowered in this sense. Then, developing countries can also contribute to this fund. In conformity with the general international law principles on state responsibility, remedial responsibility is placed on the state exercising jurisdiction or control over the private actor responsible for wastes causing injury, if such responsibility cannot be discharged under the civil liability and/or fund regime.<sup>171</sup>

Here, state responsibility is limited only to re-importation and could be extended to include reparational costs *in pristinum*, that is in kind, or *in integrum*,<sup>172</sup> that is, monetary compensation for clean up of damage caused, as unambiguously reflected in Bamako.<sup>173</sup> Such reparational costs are to be effected in order to restore the situation which would have most probably existed if the illegal act had not occurred. When toxic wastes cannot be disposed of in an environmentally sound manner, the exporting state has the duty to re-import such waste within 90 days from the time that the importing State informed the State of export and the Secretariat, or such other period of time as the states concerned agree.<sup>174</sup> The exporting State and any Party of transit must not oppose, hinder or prevent the return of those wastes to the State of export.<sup>175</sup>

Though in theoretical terms, it is commendable to prohibit exporting states of hazardous wastes from obstructing re-shipments of these substances from importing states back into the territories of the former, the fact that there is only a duty to re-import and also, ensure reparation for damage costs, may really not be adequate. Penalties should really be incorporated into the liability regime and extended to include huge imprisonment fines, withdrawal of operating licenses and financial levies on toxic waste offenders, as these really touch on such issues which affect the very existence of human and ecological life.



If these issues are a crime against humanity, then liability for offenders should be envisaged proportionately, otherwise the series of Conventions to tackle this issue may not have much meaning in reality. By so doing, potential offenders could pay due caution to their acts and pay greater heed to the foresight principles in their toxic waste trading activities. They could thereby ensure that to a large extent, this takes precedence over the polluter pays, where the act is already done, they simply rectify the loss and then, have no additional burdens to bear for these inhumane consequences which could result from certain categories of toxic waste trading activity.

#### 3.4.1 (e) Ghana, Côte d'Ivoire and South Africa and the Status of the Basel Convention

Comprised of 148 State parties and member states of the European Union, this convention was adopted on 22 March 1989 by 116 countries in Basel, Switzerland. It came into force on 5 May 1992.

Ghana acceded to the Basel Convention on 30<sup>th</sup> May 2003, and sees this as reiterating its support for the Basel Ban Amendment as well. This shows that similar to the case of South Africa, this country might in reality desire to regulate, in very exceptional circumstances, toxic waste trade with industrialised countries and not ban it altogether. Ghana plans to implement relevant national legislation to give effect to the relevant provisions of the Basel Convention sometime in 2003. It is also noteworthy that Ghana is intent on banning trade in toxic waste *in toto* and has ratified the Bamako Convention. No municipal law exists yet. However, Ghana contemplates the establishment of such a law in the foreseeable future.<sup>176</sup>

In the case of Côte d'Ivoire, it is a member of the Basel Convention and has not yet acceded to the Ban Amendment. It acceded to this Convention on 1<sup>st</sup> December 1994.<sup>177</sup> However, it has ratified the Bamako Convention and has implemented a municipal law, which bans the importation of toxic waste. The fact that this country's municipal law on toxic waste was enacted in 1988, prior to the adoption of Bamako, also demonstrates its strong commitment to ban toxic waste trade and entry into Ivorian territory. Even if the Ivorian government ratified the Ban Amendment which has the same objectives of the Bamako Convention, the difference in the present situation may not be great, for with a municipal law which forbids toxic waste imports, the situation is clear. This also facilitates intra-African trade with other countries such as Ghana. However, when it

comes to trading with a country such as South Africa, the existence of a special bilateral agreement may be necessary, as South Africa is currently not a member of Bamako. South Africa's accession to Bamako would provide a ready simplification of the whole process, as there would be no need for special treaties between these African countries when the need for such trade arises.

South Africa's accession to the Basel Convention on 5<sup>th</sup> May 1994,<sup>178</sup> demonstrates its commitment to engage in regulated toxic waste trade with countries of the developed world, and not ban such trade altogether. No municipal law exists yet to give effect to such ratification. However, it is now in a position to make a decision on the accession to the Ban amendment. With the possible exception of certain refinery materials, Annex VIII substances do not contain any hazardous wastes that South Africa has any need or reason to import from the OECD countries. South Africa's acceptance of Annexes VIII and IX would be in conformity with its stated policy not to import hazardous wastes from developed countries as well as the relevant clauses in the recently signed Lomé Convention.<sup>179</sup> One issue which still needs to be resolved is the importation of limited quantities of Annexes VIII materials for pure research purposes. Certain established research facilities including MINTEK are adequately equipped with a high degree of sophistication and may be in a position to develop new technologies to deal with such materials in an environmentally sound manner.

The newly developed know-how or technology could be sold to the country where the waste originated. However, when such substances are actually lead or arsenic, or some other highly poisonous substances in nature, even for research purposes, it may still be environmentally beneficial for South Africa to reject such substances and rather find a worthy alternative for whatever research it may require. It is highly recommended that South Africa ratifies the Ban Amendment and the Bamako Convention as well, for the same reasons indicated above.<sup>180</sup>

Under NEPAD when deeper regional integration is the key objective in Africa, it would be advisable to even start sending gold and other metals from the other two case study countries into South Africa, for reprocessing. However, if there are discrepancies in what is hazardous and what is not, and whenever such a transaction has to occur, a special treaty has to be negotiated, the whole process may then become cumbersome.

Furthermore, when batteries which contain cadmium and other used substances are collected for recycling and resale, this may be easier under the suggested circumstances, when these countries speak with one voice, in this sense.<sup>181</sup>

While adhering to all these recommendations, the necessity to enact municipal laws to reflect the international commitments under Basel and its Ban must not be overlooked. In the case of Côte d'Ivoire, the recommendations for a better and more efficient functioning of its toxic waste trade law, such as the need for a specific definition of toxic waste, as part of its law,<sup>182</sup> may give the law a more concrete effect, as it operates in reality. Another recommendation is the imposition of penalties, which will then be a part of the Basel Convention, as suggested. As indicated above, making the offender pay for the damage caused may not be enough, under the polluter pays. Additional fines and imprisonment sentences, the withdrawal of licences, are all suggested.<sup>183</sup> These, in addition to the implementation of the preventive principle through waste minimization and cleaner technologies, as well as manufacturing processes, all ensure that the international commitments of this Convention, to promote the preventive and precautionary principles for instance, are in operation at the municipal levels.

Regarding the relationship of the Basel Convention and its Ban Amendment to these three case study countries, it may also be proposed that relevant officials from the various ministries embark on publishing reports concerning the various aspects of the workings of the Basel Convention which they have undertaken. Pertinent issues in this regard which could be incorporated into such a report could include important lessons which have been learned from the series of Basel workshops, the sort of steps which have been taken at municipal level to ensure the compliance of the Basel and its Ban Amendment, the kind of problems encountered, such as acute staffing shortages and the sort of necessary steps which might rectify these problems, such as the positions created for consultants, interns and additional staff.<sup>184</sup> Information in such reports could also be made available on the internet and submitted to the offices of the various BCRCs, by the officials from the relevant ministries. Such reports also show the seriousness which the governments of these countries attach to their commitments under the Basel Convention. In addition to this, they reflect the successes of the Convention, especially at the municipal levels of the three case study countries. In the case of the Ban Amendment, a similar exercise may also be recommended.

### 3.4.1 (f) Evaluation of Basel

An assessment of this Convention reveals that for the most part, a great deal of success has been encountered in its implementation. For example, this Convention has made transparent all transboundary movements, between OECD countries and between OECD and non-OECD countries.<sup>185</sup>

Other success stories include the following:

#### (a)(i) Establishment of Basel Convention Regional Centres

- Since its establishment, the Secretariat of the Basel Convention has set up BCRCs in specified regions, that is, Africa, Latin America and the Caribbean, Eastern Europe and East Asia. This conforms to the requirements of the Basel Convention which exhort the Secretariat to set up regional or sub-regional centres for training and technology regarding the management of hazardous wastes and other wastes and the minimisation of generation, depending on the specific different regions and sub-regions. Hence, these Centres operate under the framework of an Action Plan common to all centres, approved by the COPs and adapted to the specific needs and possibilities of the geographic regions and sub-regions by their activities.<sup>186</sup> The main idea here is to attain this goal through the enhancement of capacity building in developing countries' hazardous waste management by training and technology transfer activities, and to assist these countries in complying with the technical, legal and institutional requirements for environmentally sound management of hazardous waste and minimisation of its generation as specified by Basel. Furthermore, these Centres have been used as effective mechanisms in furthering Basel's aims of establishing a worldwide control system for transboundary movements. It then becomes easily discernible that the Basel Party members have succeeded in translating these theoretical objectives into concrete, pragmatic steps within the various regions of its Basel member states.
- It is beyond the scope of this thesis to discuss the centres located outside African territory. However, it is noteworthy that within the continent, the Secretariat of the Basel Convention has successfully established four centres, namely:

- The Centre for English Speaking African Countries (ESAC), which was established in June 2000. The Centre is hosted by South Africa's Vista University where it is located and the DEAT on behalf of the South African government in Pretoria. The ESAC seeks to serve all English speaking African countries.
  - The Centre for French Speaking African Countries (FSAC), which was set up in 1998. It is hosted in Dakar by the Institut Africain de Gestion Urbaine on behalf of the Government of Senegal. Countries operating under this Centre are all Francophone African countries.
  - The Centre for Arabic Speaking Countries was established in 1998. It is hosted by Cairo University's Centre for Environmental Hazard Mitigation. This is done on behalf of the Government of Egypt. Countries of the African Maghreb region are covered by the workings of this Centre.
- In addition to these regional centres, the third meeting of the COPs through its Decision III/19, agreed to establish two co-ordinating centres, in Nigeria for the African Region and in Uruguay for Latin America and the Caribbean. The Nigerian Centre is not yet officially and fully operational. However, arrangements for its implementation and role are in the process of being finalised. Its scope of activity will cover the entire African continent. There have been no activities yet. However, planned activities include the electronic network of hazardous waste data, resources and information protocols for monitoring and advising on illegal traffic on hazardous waste, and harmonization of hazardous waste classification and labelling procedure. Though this Centre is also timely, it may be suggested that for the avoidance of duplicity and unnecessary expenses with the workings of the Centres in Pretoria, Cairo and Dakar, due caution be given to the workings of this particular Centre.<sup>187</sup>

(a)(ii) Activities of these Centres

From 8-12 January 2001, the first Continental Conference for Africa on the environmentally sound management of obsolete stockpiles of hazardous waste and its prevention was organised in Rabat, Morocco. The Conference was organised under the

aegis of UNEP, the Moroccan government and the Secretariat of the Basel Convention. In terms of establishing contacts with offices in different countries which tackle the same problems, the Conference proved valuable. The fruits of these contacts resulted *inter-alia*, in a subsequent visit of members of the BCRC in Pretoria to Mare Chicose landfill site in Mauritius. Through this visit, first hand information and insights were gained into the sophisticated technological efficiency with which this Mauritius is endowed, for disposing of hazardous waste. The existence of a high level of collaboration between the various Ministries such as Environment, Trade and Health, and the University, in managing such a site is a lesson borrowed and adjusted for the countries being covered under the BCRCs.<sup>188</sup> These could be incorporated into the guidelines for the operation of the hazardous waste recycling projects in Chapter 5 and be particularly useful in the approach adopted by the Inter-Agency Permit Scheme within the three case study countries, when granting or refusing toxic waste imports and exports.

From 1-2 February 2001, the Basel Secretariat convened a meeting in Geneva which aimed at informing Permanent Missions of the Basel Convention signatory African countries about the need to expedite the legal process for establishing the Regional Training Technology Transfer Centre in Geneva. Based on a compilation of national inventories of hazardous wastes for SADC countries, a decision was made to launch a four-year DANCED-sponsored project on PCB management in SADC countries. It was planned that with time, the scope of this project would be expanded to cover all English-speaking African countries. However, given the highly toxic nature of PCBs as reflected in the model law and Chapter 2.7.2(b), it may be proposed that such a project only recycle car batteries, waste oils, hydrocarbons or any other less toxic substances, and not PCBs or any other similar wastes.<sup>189</sup>

Other meetings which have been convened by the Basel Centre to train Anglophone African on hazardous waste management include the workshop on hazardous waste management in Nairobi, Kenya, on 17 October 2001. This meeting *inter-alia*, provided in-depth insights on Kenyan legislation on hazardous waste management, its problems and solutions and the Kenyan experience supported by a case study on practical PCBs management.<sup>190</sup> For the purposes of this thesis, the Basel Centre, by organising such a workshop, actually helps resolve the problems of insufficient public enlightenment and capacity building, which lead African countries including the three case study countries of

this thesis to sometimes import and export dangerously toxic waste such as PCBs and PBBs. This is discussed in Chapters 5.3.3 and 5.3.5.

Similarly, a workshop on Hazardous Waste Training was held in Pretoria from 19 to 22 November 2001. It focused on Hazardous Waste Training and Technology Transfer for Focal and National Linkage Institutions' representatives and resulted in the consensus about having linkage institutions, which would actively participate in the capacity-building efforts in each country.<sup>191</sup>

In the foreseeable future, the Centre envisages hosting a series of workshops which will focus on the environmentally sound management of hazardous waste, details pertaining to waste generation and other relevant issues.<sup>192</sup>

The activities of the BCRC for Training and Technology Transfer in Senegal are also significant for improving the low ebb of public awareness and expertise reviewed in Chapters 5.3.3 and 5.3.5, as far as toxic waste trade regulation is concerned in Francophone Africa, and for the purposes of this dissertation, Côte d'Ivoire. These activities include a workshop on the inventory of hazardous wastes in 1999 in Dakar, support to a national project on PCB management in Côte d'Ivoire from 2000-2001 and the training of three officials of Ministries of Environment as well as certain customs officers for the implementation of this project. This BCRC has also encountered success in its medical waste project in La Côte d'Ivoire. The Second Meeting of the BCRC for Francophone countries, convened in Dakar, Senegal, in February 2002, noted the timeliness of the UNEP pilot project (which was scheduled for 2003) for managing chemicals in Africa. This project is executed by the Basel Secretariat, in co-operation with the Secretariats of Rotterdam and Stockholm.<sup>193</sup>

It is remarkable that such workshops and conferences have been convened and also that, the three case study countries send participants to these meetings. However, for a further impact to be felt, it may be recommended that participants from the three case study countries and others share and document their experiences with colleagues from relevant ministries, other environmental NGOs which work on toxic waste issues and other members of the recommended Inter-Agency Permit Scheme.<sup>194</sup> These lessons learned, from the participants' perspectives, could serve as valuable inputs to the reports on the

workings of Basel and could also be made available to the public at large, so that these lessons on environmentally sound techniques of handling toxic waste are easily grasped by everyone.

Success stories and obstacles will be articulated. Obstacles could especially be communicated to the Permanent Missions of a given country in Geneva, which is in close proximity with the Basel and WTO offices, and can work collaboratively to resolve any problems. All this facilitates the workings of the Basel Convention. This could also serve as inputs from officials from the three case study countries who will then be more empowered when they attend relevant WTO, Basel and other Regional Workshops, instead of just participating in these activities as "passive listeners".

#### (b) Meetings of Conference of Parties

In addition to the foregoing, further positive attributes of the Convention include its six COPs convened in the twelve years when it became operational. Each of these conferences has made positive impacts in reinforcing certain goals of Basel, aimed at reviewing its progress thus far and identified challenges that lie ahead, as well as the way forward.

To this end, the First COP, held in December 1992, adopted Decision I/23 on the vital role which the Secretariat of Basel could play in implementing Agenda 21. It also adopted Decision urging the secretariat to co-operate with the UN bodies, specialised agencies and regional systems and organisations, together with other decisions. It was at this COP that many Basel parties requested the establishment of a Ban Amendment and Draft Protocol on Liability and Compensation for Damage Resulting from the Transboundary Movement of Hazardous Waste.<sup>195</sup>

The Second COP was convened in March 1994. In response to the request made at the first COP for a Ban Amendment, the Second COP adopted a decision on the prohibition of hazardous waste from developed into developing countries. This COP gratefully acknowledged the progress report presented to it by the Ad Hoc Working Group of Legal and Technical Experts to consider and develop a draft protocol on liability and compensation for damage resulting from the transboundary movement of hazardous waste. This COP further emphasised the need for the Ad Hoc working Group to make



efforts to finalise the proposed draft articles of the Protocol in order to present it for consideration and possible adoption by the Third COP.<sup>196</sup>

At the Third COP organised in September 1995, it was indicated that to a large extent, the work which has been carried out in the implementation of Decision II/12 had contributed to a rapid growth in the number of state parties to the convention, its objectives around the work and the increased interest in the workings of the Convention. Another important contribution of this Convention is the fact that it translated an earlier decision of the Second COP on the Ban Decision into a Ban Amendment. This COP particularly stressed the need for a greater deal of collaboration between NGOs, government ministries, industry and business groups.<sup>197</sup>

The Fourth COP, held in February 1998, has been particularly deemed to be a success because it achieved intensive clarification and listing of hazardous wastes.<sup>198</sup>

The Fifth COP, held in December 1999 was particularly significant in *inter-alia*, its adoption of the long-awaited Protocol of Liability.<sup>199</sup>

Subsequent to this was the Sixth COP, organised in December 2002. It noted the progress in the ratification of the Ban Amendment, namely that up to that point, there were 34 out of the required 62 requisite number of ratifications for the Ban Amendment to be effective. Among the significant decisions adopted at this meeting were those on the:

- (a) Collaborative work between the Secretariats of the Basel Convention, AMCEN and NEPAD; and
- (b) Adoption of technical guidelines for the environmentally sound management of biomedical and healthcare wastes, plastic waste, lead-acid batteries and full and partial dismantling of ships.<sup>200</sup>

Another positive attribute of the Sixth COP was its decision for Basel to seek observer status within the Special Session and Meetings of the Committee on Trade and Environment, and report to parties on developments within the Committee.<sup>201</sup> This particular COP further launched the Mobile Phone initiative, which is basically a

partnership between the Basel Secretariat and the Mobile Phone Industry, to manage and recycle end of life mobile phones.<sup>202</sup> Of vital importance are these particular two achievements to the trade and environment debate, as they show how a certain contemporary trend in international trade law, mainly how sustainable development, can be effectively reconciled with environmental concerns, with practical examples to substantiate this point. This has been analysed in more depth, in Chapters 2 and 4.

Other positive aspects of this meeting are the fact that France demonstrated its commitment to support the activities of the BCRC in Dakar, Senegal, in order to assist Francophone African countries, with effect from early 2004.<sup>203</sup>

The Seventh COP is scheduled for October 2004 and hopes to reinforce issues such as the Draft Decision on Capacity Building Activities.<sup>204</sup>

On the other hand, remaining challenges include how to build the capacity of developing countries and countries with economies in transition to manage wastes in an environmentally sound manner as well as how to facilitate access and transfer of sound technologies, including cleaner production technologies. Perhaps, the precarious financial situation of this group of countries explains this trend.<sup>205</sup> A possible solution may be financial assistance and conditional offers from the first world, until this group of countries are sufficiently equipped with these technologies and capacity to ensure better production methods.

The legal status of these centres needs to be formally established as separate legal entities by relevant authorities of the host countries in accordance with national law, and the operation and management of the Centres should be subject to the laws and regulations of the host countries.<sup>206</sup>

From the above, the regulation of hazardous waste trade, under the Basel Convention, could on the whole, be deemed to have been greatly successful.

### 3.4.2 The Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa

#### 3.4.2 (a) Background

On 30<sup>th</sup> January 1991, the Bamako Convention was adopted by the OAU Pan-African Conference on Environment and Sustainable Development in Bamako, Mali. Under the principle of national sovereignty, African countries under this Convention deemed it expedient to impose a total ban on the importation of toxic wastes from industrialised countries into Africa, while at the same time promoting intra-African trade in such substances.<sup>207</sup> The reasoning behind this may be the fact that these leaders deemed it necessary to trade in wastes and treat them, as close as possible to their source of generation, and not necessarily flaunt the MFN rule.<sup>208</sup> The Bamako Convention could be acknowledged as a reflection of the dissatisfaction of African Heads of States to the Basel Convention. While these leaders were intent on adopting an international regime which would completely forbid the importation of toxic waste into their respective territories during the course of free trade, Basel only aimed to regulate, not prohibit such trade.<sup>209</sup> On attaining the requisite 15 ratifications from member states, which includes Ghana and Côte d'Ivoire, but not South Africa, this Convention entered into force in April 1998.<sup>210</sup> One importance of the Bamako Convention is that through its stipulations, for instance, that relating to the PIC and also, the Dumpwatch, it could also help African countries fulfil their obligations to the Basel Ban Amendment.

As a matter of fact, prior to Bamako, the OAU Resolution Relating to the Dumping of Nuclear and Industrial Waste in Africa, as indicated in paragraph 4 of Chapter 3.4.1(a), had been adopted in 1988 by the African Council of Ministers at its Forty-Eighth Ordinary Session in Addis Ababa, Ethiopia. As stated in this session, this Resolution reiterates the main philosophy and stipulations of Bamako<sup>211</sup> and in this regard, possesses exactly the same objectives of the Convention. In this regard, the Resolution emphatically deems the dumping of nuclear and industrial waste into Africa tantamount to a crime against this continent and its populace at large.<sup>212</sup> It condemns all transnational companies who have practised this form of toxic imperialism in Africa,<sup>213</sup> requires African countries who have negotiated contracts covering trade in such substances with such corporations to terminate these contracts<sup>214</sup> and further requires that these countries disseminate in their respective territories, information on the inherently hazardous nature of these industrial and nuclear wastes.<sup>215</sup> Member states also have to employ ecologically

rational methods in managing waste, thereby adhering to the principles which are enshrined in the Cairo Guidelines.<sup>216</sup> The Resolution further requests the OAU Secretary-General to: work collaboratively with the heads of the UN Economic Commission for Africa, UNEP and other relevant organisations to establish appropriate mechanisms for monitoring and controlling the movement of nuclear and industrial waste in Africa,<sup>217</sup> to include the issue of waste dumping in Africa as a crucial item of agenda to be deliberated upon by the then forthcoming Forty-third session of the UN Assembly<sup>218</sup> and to report to the Council of Ministers at its then prospective Fiftieth Session, on the implementation of this resolution.<sup>219</sup>

#### 3.4.2 (b) The Obligations of Parties in Adopting Strict Measures for a Stringent Waste Management Regime

Parties to this Convention are required not to enter into toxic waste trade with non-parties, except in situations where such arrangements enforce the “environmentally sound” management criterion in the treatment of hazardous waste.<sup>220</sup> It is noteworthy that these agreements with non-parties must be limited to wastes generated in Africa,<sup>221</sup> implying that Bamako permits a considerable degree of regulated movement of hazardous wastes between Africa countries though.<sup>222</sup> Provisions on inter-African co-operation<sup>223</sup> and exchange of information<sup>224</sup> are similar to those of Basel. The receiving country must also to give its consent prior to the shipment of such wastes in writing and must have elucidations regarding the contents of such substances.<sup>225</sup> African countries are obliged under this Convention to enforce relative and appropriate legal, administrative and other measures within their respective municipal systems.<sup>226</sup>

Furthermore, they must also ensure that hazardous waste generators submit to the Secretariat, reports detailing the exact quantities of waste generated in order to complete a hazardous waste audit.<sup>227</sup> They must also adopt and implement the preventive, precautionary approach to pollution problems by forbidding the entry into their respective territories of substances which they reasonably know can be contaminous to the health or environment of their countries, without waiting for scientific evidence regarding such harm.<sup>228</sup> Bamako also stresses the need for member states to adopt clean production methods to be applied to the entire life cycles (thereby adopting the cradle-to-grave approach) of activities such as raw material selection, extraction and processing; product conceptualization, design manufacture and assemblage; and reintroduction of

the product into industrial systems or nature when it no longer serves a useful function.<sup>229</sup>

According to the terms of the Convention, parties are further required to appoint national focal points and competent authorities,<sup>230</sup> and national bodies to act as a “watchdog” or Dumpwatch, in collaboration with other similar governmental and non-governmental bodies.<sup>231</sup> They must inform the Secretariat, within three months of entry into force, of such established municipal bodies<sup>232</sup> and within a month of the date of decision, of any changes in such designations of bodies.<sup>233</sup>

#### 3.4.2 (c) Functions of the Secretariat and Conference of Parties

The Convention establishes a Conference of Parties<sup>234</sup> and a Secretariat.<sup>235</sup> The Secretariat is operated from the headquarters of the OAU, now the AU, in Addis Ababa, Ethiopia, from where its principal activities are co-ordinated. The functions of these bodies bear a considerable degree of similarity to the same bodies under the Basel Convention. The Secretariat is *inter-alia*, entrusted to prepare reports regarding its activities which are required by this Convention and present them to the COPs and communicate with the focal points as well as Dumpwatch on the relevant aspects of Bamako.<sup>236</sup> It is also authorised to actively verify alleged breaches of the Convention, reported to it by a party.<sup>237</sup> The functions of Bamako’s COPs are to regulate the financial aspects of the implementation of the Convention<sup>238</sup> and to set up an elaboration of a protocol on liability and compensation.<sup>239</sup>

#### 3.4.2 (d) Relationship of Bamako to Ghana, Côte d’Ivoire and South Africa

Regarding Bamako, Ghana adopted the Convention in January 1991, together with other African states in Bamako, Mali, but has not ratified it yet. Therefore, to date, no municipal law has been enacted to give effect to the principles of this Convention. The Convention, as indicated in Chapter 3.4.2(a), has however been in force since 1998, upon attaining the requisite number of ratifications. The government of Ghana is currently in the process of adopting the Bamako Convention and contemplates enacting a relevant national law in this regard. It is important however to note that this will be done, while mindful of the financial benefits which toxic waste could yield.<sup>240</sup> In spite of this country’s commitment to a total ban in toxic waste trade with OECD countries, there is also no law which reinforces this commitment, spells out penalties, *inter-alia*. However, as Ghana

has acceded to Basel and is intent on ratifying its Ban together with Bamako, as discovered from the research inquiry from the Basel Convention website and personal discussions with relevant officials from MEST and EPA in Accra, then, this should timeously reflect in its municipal law. Otherwise, these ratifications become meaningless in reality. Relevant public debates and official discussions should be ongoing. Illegal practices in toxic waste trade and all manner of acts which run contrary to the principles of these conventions are then successfully carried out in practice.

Furthermore, the Basel Convention, with its Ban, is now somewhat similar to the Bamako Convention in its objectives of banning trade in these substances from the first to the third world. The question then becomes: Why adopt two conventions with similar objectives, as this may result in duplication and more financial burdens of having to maintain membership to these two Conventions, having to participate in various meetings organised by these two conventions, *inter-alia*? It might just have been better to stick to Bamako, ensure that it reflects in the current Ghanaian law and enter into environmentally-friendly agreements with any first world countries which may in very limited situations, want such trade in lead for car batteries, and other forms of less toxic waste. Other highly toxic waste such as PCBs would be excluded in this regard.<sup>241</sup> On the other hand, since Basel and Bamako now have similar objectives in banning trade between OECD and non-OECD countries, and Ghana is keen on being a member of both conventions, perhaps the municipal law in accordance with these Conventions should just be enacted and more finances be allocated to complying with the objectives of these conventions. While banning all manner of toxic waste from the first world, when it comes to other forms of toxic waste such as lead in car batteries, very limited exceptions based on environmental evaluation could be made on a case by case basis, for their importation from other African countries.<sup>242</sup>

In addition to being a signatory to this Convention in January 1991, Côte d'Ivoire ratified Bamako on 9 June 1994.<sup>243</sup> Prior to the establishment of this Convention, this country had already enacted its municipal law which also reflects its commitment to implementing the stipulations of this Convention. This shows the commitment of this country to prohibiting toxic waste trade with industrialised countries. Given the fact that there may be too many burdens and duplications with its accession to Basel, this country

could simply maintain its municipal law, and enter into exclusive bilateral treaties with industrialised countries, in exceptional circumstances.

As far as South Africa is concerned, it faces a dilemma on whether or not to accede to Bamako. This is of interest to many governmental Departments and NGOs within the region. As indicated already, the basic difference between the Basel Ban Amendment and the Bamako Convention is that while the Basel Ban has an international dimension affecting practically all the nations of the world, Bamako has a regional focus and is limited to countries within the African continent. Any prospective decision by South Africa to accede to the Bamako Convention will therefore have to be based on financial factors such as the cost implications of having to participate in two Conventions with the same objectives.

Against this backdrop, political considerations also come into play. For instance, one should take a critical look at certain new initiatives which are being promoted within the context of enhancing African solidarity and integration, in terms of economic and political factors, for instance. These include the NEPAD, MAP and OMEGA initiatives and even the transformation of the OAU into the AU.<sup>244</sup> These initiatives, as illustrated above, seek to ensure that Africa speaks with one voice and thus, eradicate trade barriers for instance, among African countries. How then does this country enter into agreements with first world countries instead of its African partners on the very same issue, implying that the latter countries would face barriers in intra-African toxic trade, when it comes to dealing with South Africa?

In this light, perhaps, it may be advisable for South African policy makers to reflect on the timeliness of permitting intra-African trade in these wastes, instead of permitting such trade with first world countries and then not having agreements of any kind with its African counterparts, which it has declared to enter into partnership with. African countries such as Cameroon, Angola and Ghana, who have mines, can be exporting their metals to South Africa for processing and treatment, within the context of these initiatives. These materials would thus be for recycling purposes, using the sophisticated technology in this country, which other African countries lack, and in an environmentally sound manner. A company such as South Africa's Mintek could use its facilities for waste treatment and disposal in this regard.

However, the issue may not be so simple. With this kind of situation, other regional waste recycling projects such as those proposed in Chapter 5.4 would function more easily, with uniformity in the approaches of these three case study countries to the definition of hazardous wastes and annexed lists to national model laws clearly elucidating the substances which should be banned, regulated or permitted according to different levels of toxicity. The same sort of scientific evidence would be provided, with similar punitive measures for offenders and similar environmental soft law principles, transcended from international levels to the municipal. Eventually, this kind of situation also enables harmonisation and standardisation of these laws, under NEPAD. Unduly optimistic though this may sound, it could still be targeted and realised. If such harmonisation and standardisation has been attained within the Sahelian French West African mechanism<sup>245</sup> and the EU, it could be hoped that once started at least, on a sub-regional basis, it could eventually be extended to the whole continent. Through NEPAD, environmentally sustainable toxic waste trade is then enhanced amongst these three case study countries and others within the continent, with the effective implementation of relevant laws. So that, in this sense, the NEPAD could be used as an effective tool to achieve the aims of Bamako, perhaps, even act as a boost to the Basel Ban decision and also, better equip these countries to help ensure that the WTO exceptional provisions under Article XX be extended to reject environmentally hazardous goods, without necessarily flaunting the WTO MFN Requirements.<sup>246</sup>

South Africa's accession to Bamako could also yield considerable benefits for this country. The purpose of this is that within the context of regional integration, where there are illegal shipments in South African ports or such intended shipments, the whole continent can work together to combat such trends and send such shipments back. Hence, membership to Bamako would give this country a stronger backing in tackling environmental issues in this regard.

On the other hand, acceding to Bamako will have serious financial consequences for South Africa, especially on membership fee and operational costs. South Africa being the richest country in Africa might be obliged to pay approximately 25% running costs of the Convention as stipulated by the OAU scale of contributions, since it has paid all its dues, in contrast to many impoverished or uncommitted other African countries who have not



done so.<sup>247</sup> For this country, it has been proposed that it could accede to this Convention on condition that it will provide office space in Pretoria, South Africa; necessary infrastructure, logistical requirements and also, provide salary for the Executive Secretary of the Convention. This proposal might cut down on costs incurred by South Africa, which is currently confronted with unoccupied government building in big metros such as Pretoria.<sup>248</sup> To this end, one would propose that the solution to this seemingly complex dilemma might not be for South Africa to enter into bilateral agreements with African countries, as permissible by Article 11 of Basel and Article 11 of Bamako. It could simply accede to Bamako, in order to derive all the abovementioned benefits and not to insist that the Secretariat be shifted to Pretoria, but remain in Addis Ababa, from where all the respective activities could be co-ordinated. This would help the Bamako Convention to function better, under NEPAD, for the aforementioned reasons.

#### 3.4.2 (e) Liability and Compensation

The Convention imposes strict, unlimited liability as well as joint and several liability on hazardous waste generators,<sup>249</sup> reiterating the polluter pays principle in this regard. The advantage of such a provision is that where countries have suffered damage, they would be able to bring actions against all the respective parties involved in such a transaction, ranging from the waste generators to the transporters and regulators of such a transaction.<sup>250</sup>

Under the Protocol on Liability and Compensation, exporting parties are required to re-import their toxic waste in cases where the importing country cannot dispose of this waste in an environmentally sound manner by the importing country. This was the kind of scenario in the case of the Senegalese *Orient Flower* incident discussed above. It is laudable that this shipment was sent back. The protocol further requires the COPs to establish an organ to draft a liability protocol on appropriate rules and procedures relating to liability and compensation.<sup>251</sup> This is yet to be accomplished. In the present circumstances, when there are illegal shipments, they are simply re-exported to their original country of destination.

Though this sounds remarkable, the absence of stipulations for huge fines and compensation could also be rectified. Provisions could be made for strict punitive

measures such as huge amounts of compensation. A hypothetical case is evident from the Senegalese and Gambian incidents discussed above, for example. Supposing the substances involved were highly toxic and had already caused a great deal of damage by the time they were sent back to Romania, the loss of life and ecological damage would have far outweighed having to simply pay for the clean up of the environmental catastrophe. The same applies to the case of the shipments into the Gambia. Take another example of the Koko affair. Serious catastrophes resulted, involving loss of human lives.<sup>252</sup> How does one simply pay some money or send the shipments back to Italy, in such a situation? It is therefore highly recommended that part of this liability protocol spell out very specific huge amounts of penalties including fines, in these instances, for more efficiency in banning such imports of highly toxic substances, which do nothing but harm human and ecological health, and are deemed to be a crime against humanity. Clearly, liability for a crime against humanity must be greatly punishable.

#### 3.4.2 (f) Assessment of Bamako

The UNEP *Global Environment Outlook* (2000) is particularly important in pinpointing the success of the Convention, as far as the functioning of the Dumpwatch obligation is concerned. According to the UNEP report, the Bamako Convention has contributed to the establishment of an advance warning mechanism, manifested in the creation of a Dumpwatch. This mechanism operates amongst West and Central African states with diplomatic representation in European capitals. This agreement enables European governments, international NGOs and co-operating institutions and individuals to supply information to African diplomatic missions on the movement of hazardous wastes from Europe to Africa and thence, urgently transmitted to Africa for necessary action. Dorm-Aborzu states that this arrangement prevented a series of purported shipments of illegal toxic waste exports into Côte d'Ivoire, Ghana, Nigeria and the Democratic Republic of Congo, in the 1990s.<sup>253</sup>

Through research findings on the workings of the Convention, it could be asserted that as far as facilitating information exchange among African countries and the AU is concerned, a lot can be attributed to Bamako. This is exemplified in the shipments of drums of vessels suspected to be toxic waste from Romania into Senegalese territorial ports in April 2000.<sup>254</sup> In this case, toxic waste was being sent in the Romanian ship, the *Orient Flower*, which had three crewmembers on board this vessel. They were suspected to

be Romanian nationals, but this was all not certain. The origin of the ship was also not known. It seems that the ship had been abandoned because of its distressed state. The crew resisted attempts of the Senegalese authorities to search the ship. Attempts by the Senegalese authorities to find out detailed information from these nationals concerning the items they were transporting proved futile.

In April 2000, the Nigerian Ministry of Foreign Affairs expeditiously transmitted a faxed Note Verbale with information on this incident to the Secretariat of the then OAU in Addis Ababa, Ethiopia, for the information of all member states.<sup>255</sup> The OAU notified other member states about this shipment. Owing to public exposure and the collaborative efforts of the OAU, Senegal and Nigeria, the ship was ultimately dispatched to its port of origin from Senegalese territory. The fact that this incident occurred in Senegal, was reported from Nigeria to Ethiopia and eventually resulted in sending this ship away from Senegal, demonstrates that the Dumpwatch is indeed functional. From this perspective, the UNEP and Dorm-Aborzu reports have been substantiated by concrete facts and validated. It could also be claimed that to a large extent, the establishment of a national "Dumpwatch", as envisaged by the Convention,<sup>256</sup> has been fulfilled. Regarding the Dumpwatch, Bamako could then be commended.

A similar Note Verbale was sent from the Gambia in the same year to the AU, about the mysterious appearance of the MJ Jona vessel into Banjul ports.<sup>257</sup> This vessel weighed approximately 1,600 tonnes of substances, suspected to be toxic waste. The OAU, upon receipt of this information, worked with the Gambian NEMA, the Gambia Police Force, the Gambia Ports Authority and other relevant state institutions to send back such shipments out of Gambian territory. So that this Dumpwatch is once again, highly commendable here, and further validates the UNEP claim.<sup>258</sup> It is very important that the Dumpwatch reports officially on its workings to the WTO's Committee on Trade and the Environment, to the public, through the various municipal Inter-Agency Permit Schemes of the three case study countries, which will be the national focal point for co-ordinating trade and environment issues, and more specifically, toxic waste trade matters.<sup>259</sup> Furthermore, the Dumpwatch could thereby proactively voice its concerns to this WTO Committee. This will facilitate the workings of the Dumpwatch mechanism. At the municipal level, everyone should have a responsibility for monitoring illicit trade

practices, as part of his or human right to a decent environment and also report to this mechanism at the national level when necessary.

In 1992, there were proposed hazardous waste shipments from a Swiss company and an Italian intermediary into Somalia. The OAU condemned this as an "inhuman act" with a "contempt for the helpless victims". The involvement of the OAU, together with Greenpeace and UNEP in investigations pertaining to this case, was a contributory factor in terminating these shipments.<sup>260</sup> To this, it may be added that even though the Bamako Convention was not fully operational then, as it lacked the requisite number of ratifications,<sup>261</sup> the fact that the OAU was involved in halting such a shipment could be seen as a positive sign of determination, on the part of the officials at the Secretariat, to deal with this problem, as it exists in reality.

On the other hand, at national levels, there could still be room for improvement in the functioning of the Dumpwatch mechanisms. For instance, after the enactment of the model national law in the case study countries and others within the continent, information still needs to be transmitted to the Secretariat, on the workings of the mechanism in each of these countries. The laws must be so strict and liability of immigration officers so stringent that upon detecting that such a shipment is occurring, this be pre-empted, and not wait until the ship arrives before sending them back. Such reports could also highlight other pertinent information such as the sort of green and clean production methods which companies are utilising in their hazardous waste production processes. Success stories will be documented in this respect, and the reports made readily available to the public. These in effect, reinforce the workings of the Convention, so that it is not perceived to be docile.

Regarding the constraints and challenges which lie ahead as far as the implementation of the Convention is concerned, no meeting has been convened to review the progress which has been made in accomplishing the contemplated aims of this Convention. In March 2000, the Meeting of the COPs to the Convention-the Policy Making Body, was supposed to convene in order to evaluate the progress of the Secretariat in enforcing the relevant provisions of the Convention. The government of Uganda offered to host this meeting and provide the necessary logistical and technical expertise and facilities. However, this meeting was not held because of budgetary constraints, the restructuring

process of the OAU and the transformation of the OAU to the AU. In these circumstances, the requirement for the Secretariat to submit a report of its activities to the COPs in the implementation of this Convention has not been met. Nonetheless, with the successful launch of the AU, the process of organising such a meeting should move at a faster pace. Within the next few months, this meeting should take place and should be convened on a periodic basis over the years ahead. The timely implementation of NEPAD also offers exciting opportunities for implementing African initiatives such as the Bamako Convention, to the fullest extent possible and striving to overcome all these obstacles. Furthermore, sources of funding are being sought and the restructuring process is also being finalised. These pave the way for the belief that there is now room for meeting the functions of the Secretariat and the COPs, indicated above. It is imperative that these obligations be fulfilled and the necessary trends change. It is recommended that review conferences be conducted time and again, at least, once every year or two.<sup>262</sup>

The outcomes of such meetings also need to be publicised, in documented forms and on the internet. Comments ought to be encouraged from the public. All these recommended activities could be co-ordinated from the Secretariat of the AU in Addis Ababa, Ethiopia. This could be helpful in enhancing public participation in these matters and also, ensuring that large sectors of the continent's populace comprehend these issues more thoroughly. Students and researchers of toxic waste trade could also gain easier access to information thereby.

Other recommendations for more positive steps to be made in the workings of the Convention include the need for more public accessibility to the workings of the Convention, through the internet and documentation to improve public awareness and participation and internet access to the secretariat, to enable a quicker way of reporting shipments when they occur. Public participation in these matters is necessary, as evident in the Koko Affair case, where Nigerian students in Italy actually contributed to discovering the origin of the shipments and re-exporting them back to Italy.<sup>263</sup> If NEPAD involves the opinions of African peoples,<sup>264</sup> it is not enough to convene workshops and meetings, to involve civil society. Views from the public should also be encouraged on aspects of regional integration, such as trading in toxic waste, on a daily basis and not only when there is a meeting. Various people anywhere, ranging from

private and governmental companies, NGOs and academics, to ordinary citizens, who are interested in toxic waste trade matters, should be able to send important and relevant opinions concerning recommendations and other points of concern to the Secretariat, as and when necessary.

Basel is highly recommended in this regard, as evident in Chapter 3.4.1. The systematic review meetings and information on the internet, have enabled much progress to be made in its workings. Understandably, this owes to the availability of finances for ensuring these activities. It is hoped that once the funding obstacle is cleared, Bamako may also be able to accomplish these aims, and thereby translate theoretical aims into reality.

### 3.4.3 Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (1998, Rotterdam Convention)

#### 3.4.3 (a) Historical Overview

This Convention fundamentally promotes the PIC procedure involving information exchange on the inherent toxicological and ecotoxicological characteristics of wastes, as a pre-requisite condition for such toxic waste shipments to occur. As indicated in Chapter 3.4.1(a), in the 1980s, the FAO embarked on developing information-exchange programmes relating to such characteristics of wastes. The Cairo Guidelines for the Environmentally Sound Management of Hazardous Wastes was set up in 1987 by UNEP. In addition to resulting in the formation of the Basel Convention, these Guidelines also provided the initial basis and motivation for Rotterdam. Thereafter, the UNEP also set up the London Guidelines for the Exchange of Information on Chemicals in International Trade in 1989. As a result of these earlier efforts, UNEP and FAO co-operatively set up the PIC procedure in 1989. Following requests by the 1992 Rio Summit, the FAO in 1994 and UNEP in 1995 called upon their respective Executive Officers to begin negotiations for a concrete instrument/mechanism on this instrument. These negotiations begun in March 1996 and resulted in the Rotterdam Convention. Rotterdam was adopted and opened for signature in September 1998.<sup>265</sup>

### 3.4.3 (b) Fundamental Aims and Objectives

The Rotterdam Convention seeks to promote shared responsibility and collaborative efforts among parties in the international trade of certain chemicals. This is done with a view to protecting human health and the environment from potential harm and to contribute to the environmentally sound use of such substances. The Convention particularly aims at attaining these objectives through co-operatively facilitating information exchange on the part of member states, about the characteristics of such chemicals, providing for a national decision-making process on their import and export and by disseminating these decisions to parties.<sup>266</sup> At its inception, the treaty listed 5 industrial chemicals and 22 pesticides including Aldrin, DDT, Dieldrin, HCH, Lindane, Mercury compounds, PCBs and others. In 1998, this list was extended to cover binapacryl and tozaphene. Current UN recommendations call for an extension of the list to include five additional forms of potentially cancer-causing asbestos to the PIC procedure of the Rotterdam Convention. These recommendations also include the pesticides DNOC, parathion, a severely hazardous pesticide mixture of benomyl, thiram, carbofuran and the two lead additives, tetraethyl and tetramethyl.<sup>267</sup>

The benefits of this main thrust of the work of Rotterdam lies in the fact that through such a multilateral approach, protectionism could also be avoided, as there is transparency in rejecting certain substances. Therefore, when the model law on toxic waste for instance has been enacted together with annexes, published and shared with other member states and parties, this is founded on scientific evidence, taking into account stipulations by international conventions, which clearly indicated which substances are to be banned and which should be imported.

### 3.4.3 (c) Liability and Compensation

At the moment, there are no mechanisms providing for liability and compensation under Rotterdam. However, the Convention provides for the establishment of appropriate institutional mechanisms to deal with such matters in the near future.<sup>268</sup> Thus, if parties from member states export banned substances from one territory into another as permitted under Rotterdam, the liability of such parties becomes questionable. Presumably, after addressing initially pressing issues such as how to obtain the requisite number of ratifications for this Convention, member parties would be also desirous to

ensure that certain other steps to making this Convention fully meaningful in practical terms, that is, measures to hold offenders liable, be implemented.<sup>269</sup>

#### 3.4.3 (d) Approach of South Africa, Ghana and Côte d'Ivoire to Rotterdam

The usefulness of this Convention to South Africa, Ghana and La Côte d'Ivoire lies in the fact that these three case study countries import and trade in different kinds of pesticides for the agricultural sector which is a main source of export, specialisation and income generation to them. In this vein, Glazewski's recommendation in 2000, for South Africa to gain membership to Rotterdam, in light of this country's trading activities in agriculture,<sup>270</sup> is also appropriate for the other two case study countries. South Africa has now acceded to this Convention, that is, in September 2002. While Ghana ratified Rotterdam in May 2003, Côte d'Ivoire ratified the Convention in January 2004.<sup>271</sup>

Consequently, it may be suggested that these three countries enforce national policies which promote the objectives of Rotterdam, since this Convention serves as a useful guide in the sort of toxic substances which should be imported during free trade. These include aldrin, dieldrin and heptachlor, which are banned by the Convention. Though these countries, under national sovereignty are entitled to import whatever substances they desire, it is also important that they are guided by international principles, based on scientific evidence, on issues such as these. For example, in the past, the use of certain harmful chemicals such as DDT and other harmful pesticides by Ghanaian farmers in parts of the Central Regional district and Tachiman, have in addition to producing harmful agricultural products, inflicted serious health problems on local farmers' reproductive health, *inter-alia*.<sup>272</sup> For the avoidance of such practices, it is commendable that all the three case study countries are now parties to this Convention.

#### 3.4.3 (e) Evaluation of Rotterdam

This Convention, while relevant for the three case study countries, can also be complementary to the Basel and Bamako Conventions. These two other Conventions stress the need for the PIC procedure, which is of paramount importance in toxic waste trade. Without this requirement, a country may not know or fully comprehend the full implications of importing a particular kind of substance. For instance, in the case where toxic chemicals and pesticides are imported from China and Japan into Ghana, Rotterdam acts as a boost to Basel by ensuring that as much information-exchange,



elucidations and explanations as possible, are given, on the potential substances which are being imported into Ghana, under Rotterdam. Such positive aspects of the Convention also reinforce the aforementioned recommendation that all of these three countries and not just Ghana and Côte d'Ivoire, ratify Rotterdam.<sup>273</sup>

The Sixth COP of Basel acknowledged the Johannesburg Plan of Implementation adopted at the WSSD in 2002, and noted that Rotterdam should be effective sometime in 2003.<sup>274</sup> It is remarkable that as at November 2003, the requisite number of ratifications had indeed been obtained for Rotterdam which consequently came into force in February 2004.<sup>275</sup>

On the other hand, there are still constraints which need to be tackled for the practical realisation of these aspirations. One serious issue which needs to be addressed under Rotterdam is the fact that there is no regime on liability. The Convention provides for the development and establishment of procedures as well as institutional mechanisms for determining non-compliance with the provisions of Rotterdam.<sup>276</sup> It further requires that such mechanisms find appropriate measures to deal with parties, in the event of their non-compliance with the provisions of Rotterdam.<sup>277</sup> Such mechanisms need to be implemented in order to increase the rate of compliance as soon as possible, lest contraveners of this law are not held accountable. This makes the Convention effective.

Here, it must be stressed that if Basel, between 1989 and 1992, gradually attained its requisite number of ratifications which enabled it to become fully operational, and by 1999, at its COP5, was able to adopt its long-awaited Protocol on Liability and Compensation, in the same way, it can be reasonably inferred that since Rotterdam has now attained the number of ratifications to become effective, parties will work on the adoption of a Protocol on Liability and Compensation, under Rotterdam.

#### 3.4.4 Stockholm Convention on Persistent Organic Pollutants((POPs) (2001))

##### 3.4.4 (a) Historical Overview

Being heralded as one of the major accomplishments of the Rio Conference (1992), the Stockholm Convention principally seeks to protect human health and the environment from the detrimental impacts of POPs, while paying heed to the precautionary principle.<sup>278</sup> POPs are fat-soluble toxic chemicals that do not easily degrade, persist for

many years in the environment, concentrate up the food chain and animal and human tissues. Examples of POPs are Aldrin, Chlordane, DDT, Dieldrin, Endrin, Heptachlor, Hexachlorobenzene, oxaphene and PCBs are all examples of POPs, and must thus be handled with care. Consequently, in response to growing adverse effects of POPs and other hazardous wastes on human health and environment, the Stockholm Convention was adopted by worldwide nations in Stockholm, Sweden in 2001, after a series of meetings by its intergovernmental negotiating committee, to specifically eliminate the commercialisation of 12 POPs which are specified as banned in the Convention. It is envisaged that the supreme body of the Convention is the COP. Basically, the COP will convene meetings on a regular basis to evaluate the workings of the Convention, evaluate its implementation, harmonise policies and within its discretionary power, establish subsidiary bodies.<sup>279</sup>

#### 3.4.4 (b) Fundamental Aims and Objectives

Stockholm phases out and limits the production of 12 POPs which bioaccumulate, collect and concentrate in the food chain. To this end, the convention requires parties to:

- (a) Prevent new toxic, persistent and biocumulative compounds such as dieldrin, toxaphene, PCBs, aldrin, chlordane and heptachlor;<sup>280</sup>
- (b) Reduce the existence of POPs;<sup>281</sup> and
- (c) Substitute these POPs with the less dangerous chemicals.<sup>282</sup>

#### 3.4.4 (c) Liability and Compensation

At the moment, there is no legal regime for liability and compensation under Stockholm. However, as suggested in the case of Rotterdam above, it is important that offending member states be held accountable under the Convention, otherwise the Convention has no real practical effect when states trade in otherwise forbidden chemicals. Hence, it is hereby suggested that a Protocol on Liability be adopted as expeditiously as possible.

#### 3.4.4 (d) Approach of South Africa, Ghana and Côte d'Ivoire

While South Africa ratified the Stockholm Convention in September 2002, Ghana did so in May 2003 and Côte d'Ivoire did so in January 2004.<sup>283</sup> It is hereby proposed that these three countries reflect the ideals of Stockholm at their respective levels. This would be timely, especially in the light of their deep commitment to banning the import of these

substances. Furthermore, this will smoothen intra-African trade, as they will ban the same substances and permit the same substances, in terms of import and export under Stockholm.

#### 3.4.4 (e) Assessment of Stockholm

Research findings confirm that after obtaining the necessary number of ratifications to enter into force in February 2004, this convention completely entered into force in May 2004.<sup>284</sup> Hence, it is a bit early to evaluate the successes or challenges of the workings of this convention. This notwithstanding, a few proposals could be made for a better realisation of the goals of Stockholm, when it is being implemented:

Similar to the other international environmental treaties discussed in this Chapter, under Stockholm, continued multilateralism on the part of worldwide nations is arguably a vital necessity, especially in contemporary times when sustainable development is a pressing need of every facet in policy-making. Some countries have begun adopting the proactive approach which seeks to avoid the use of toxic chemicals and this is commendable. Others are yet to reach this goal. After the WSSD (2002) especially, multilateralism could be a necessarily useful tool in facilitating the attainment of the necessary ratifications required for this Convention to become effective. To this recommendation, it is also added that the effect of such ratification be reflected at municipal level by enacting appropriate national legislation to give full and practical effect to the principles of Stockholm which a country is committed to, through its ratification/accession to the Convention.

Mc Ginn confirms that concerning the 80,000 chemicals on the market, little information exists on their health and environmental characteristics as well as the effects of the amalgamations of these chemicals. In the face of this, she further adds that manufacturers introduce estimated 1,000 new chemicals.<sup>285</sup>

If the Convention is dedicated to implementing the precautionary principle, it might be appropriate for its Secretariat to recruit scientific researchers on an on-going basis, who will inquire into the scientific characteristics of these substances and report back regularly on the effects of POPs, the unknown constituent elements of some of these elements and their impact.

The fact that Stockholm will work alongside Basel and Rotterdam, especially in the implementation of measures, to prevent/eliminate the releases of stockpiles of wastes and appropriate technical guidelines for the environmentally sound management of wastes, to compliment their workings<sup>286</sup> is also commendable, since these two other Conventions are also dedicated to the regulation of trade in hazardous waste. This will ensure that the ultimate desired goal of health and environmental protection is achieved, through necessarily avoiding a situation where there is a proliferation of mechanisms, all with similar goals. This ensures cost-effectiveness thereby.

### **(B) Soft Law Instruments**

Having discussed the more legally binding treaties reflecting soft law principles which seek to regulate toxic waste trade issues, the somewhat less binding soft law instruments, UN institutions and African regional efforts are discussed, as they relate to the three case study countries.

#### **3.4.5 United Nations Conference on Environment and Development (1992)**

##### **(i) Aims of Agenda 21 which Pertain to Hazardous Waste Issues**

Agenda 21 requires national and international efforts to focus on managing chemicals in an environmentally sound manner. To this end, this Chapter aims, *inter-alia*:

- (a) To strengthen international risk assessment. Several hundred priority chemicals, including major pollutants and contaminants, should be assessed by the year 2000;
- (b) To produce guidelines for acceptable exposure to a greater number of toxic chemicals;
- (c) To make available, by the year 2000, a globally harmonised hazard classification and labelling system;
- (d) To promote greater exchange of information on chemical safety, use and emissions;
- (e) To eliminate unacceptable or unreasonable risks and to reduce risks posed by toxic chemicals;
- (f) To put in place, by the year 2000, national systems for environmentally sound chemical management;
- (g) To reinforce national capacities to detect and halt any illegal attempt to introduce toxic and dangerous substances into States;

- (h) To assist all countries to obtain all appropriate information concerning illegal traffic in toxic and dangerous products.<sup>287</sup>

Agenda 21 further calls for a systematic and co-ordinated approach amongst international and municipal systems, to accomplish the aforementioned aims, as a pre-requisite to the full ratification and implementation of the Basel and Bamako Conventions. Hence, this Chapter also identifies the following hazardous chemicals including DDT, PCBs, dioxin, sulphuric acid, phosphate fertilizer and heavy metals, such as lead, arsenic and mercury, as requiring the following stringent managerial principles to be applied in an environmentally sound manner:

- (a) Preventing and minimising hazardous wastes through the promotion of cleaner production methods, recycling of materials and knowledge enhancement;
- (b) Strengthening institutional capacities in hazardous waste management through promotion of appropriate national measures and programmes, research and development, human resources development and dissemination of information on hazardous waste;
- (c) Strengthening international co-operation in managing transboundary movements of hazardous wastes by harmonising procedures for identifying and controlling waste and promoting economically and environmentally sound recycling;
- (d) Preventing illegal international traffic in hazardous wastes by providing countries with information and assistance, within the framework of the Basel Convention.<sup>288</sup>

(ii) Achievements of UNCED, in Conformity with its Aims

In April 1994, the Intergovernmental Forum on Chemical Safety (IFCS), was established as a non-institutional forum in Stockholm, Sweden, to promote co-operation between governments, intergovernmental organisations and NGOs, in implementing programme actions related to chemical risk assessment and the environmentally sound management of chemicals. The main purpose of this Forum is to provide policy guidance, develop strategies in a co-ordinated and integrated manner, to elucidate the public on these issues and to promote the necessary policy support necessary for these functions.<sup>289</sup>

In 1995, the Inter-Organization Programme for the Sound Management of Chemicals (IOMC) was institutionalised as a similar mechanism. The IOMC is an instrument for co-ordinating efforts of six major international organisations to assess and management

chemicals. These two initiatives, called for by the 1992 Rio Conference, have made significant improvements in international co-operation and co-ordination in managing toxic chemicals in an environmentally sound manner.<sup>290</sup>

The following cases illustrate examples of success stories relating to the activities developed through these new mechanisms. They also demonstrate the extent to which the aims of Chapter 21 have been achieved:

- (a) FAO and UNEP have jointly implemented the two codes of conduct dealing with the voluntary procedure for PIC, which have culminated in the eventual formation of the Basel and Rotterdam Conventions. This serves the purposes of facilitating information exchange providing basic information needed for making health and environmental decisions concerning the future use of those covered chemicals.
- (b) The FAO/WHO *Codex Alimentarius* established international standards on pesticide residues in food and food residues.
- (c) FAO is assisting countries in Asia to establish integrated pest management (IPM)-a major strategy for reducing reliance on pesticides-through training programmes for farmers and trainers. Such programmes are also being implemented in Ghana. It is hereby recommended that they be extended to Côte d'Ivoire and South Africa.<sup>291</sup>

Despite these accomplishments of UNCED 1992, challenges still lie ahead. These include the use of outdated technologies by developing countries, the need for Governments to elaborate and implement a protocol on liability and compensation in the area of hazardous wastes, ensuring that countries are able to make transparent, information detailing the generation and management of every form of waste, and the necessity to develop ways of minimising the generation of hazardous waste from sources such as hospitals, agriculture, households and industrial activity.

#### 3.4.6 World Summit on Sustainable Development (WSSD)

At the recently-convened World Summit on Sustainable Development (WSSD) from August to September 2002 in Johannesburg, South Africa, important decisions which sought to enhance work on hazardous waste issues included the following:

- (i) Aim by 2020, to use and produce chemicals in ways that do not result in significant adverse effects on human health and environment;

- (ii) Renew the commitment to the sound management of chemicals and hazardous wastes throughout their life cycle;
- (iii) Promote ratification and implementation of relevant international instruments on chemicals and hazardous wastes, including the Rotterdam Convention, so that it can enter into force by 2003 and the Stockholm Convention on Persistent Organic Pollutants, so that it can enter into force by 2004;
- (iv) Encourage countries to implement the new globally harmonised system for the classification and labelling of chemicals as soon as possible, with a view to having the system fully operational by 2008.<sup>292</sup>

Since the Rotterdam Convention has attained its requisite number of ratifications, it should be entering into force anytime in 2004. Nations also continue to ratify and accede to Stockholm. When reviewed against Chapter 3.4.6(iii) above, the WSSD could be seen not only as reinforcing the aims of these international Conventions, but implementing certain decisions which it adopted.

The establishment of the WSSD Declaration on the Phase-Out of Leaded petrol is also commendable in this regard, and helps developing countries in Sub-Saharan Africa to adhere to less-polluting petrol in this regard.<sup>293</sup>

### **(C) UN Institutions**

Other UN agencies also implement international toxic waste related guidelines for relevant projects at the national and regional levels, through nations' respective Environmental Ministries and Agencies. These reflect the very important soft law principles which must be at the foundation of every waste or toxic waste generating activity. So many are these guidelines and projects, that it is impossible to discuss all of them in this work. Therefore, a few of them are cited at this point.

#### **3.4.7 United Nations Conference on Trade and Development**

In 1964, the UN created UNCTAD to ensure the full integration of developing countries into the global economy. To this end, the main role of this agency is to enhance the integrated treatment of trade and development and the interrelated issues in the areas of finance, technology, investment and sustainable development, especially, as these pertain to developing countries.<sup>294</sup>

Much of the work of UNCTAD in toxic waste trade has focused on lead waste recycling projects in India, the Philippines and parts of the Caribbean region. In this regard, guidelines have been developed for the environmentally sound management of these wastes as they are traded in. The result of these projects has been the importation of these substances from other countries for recycling and reuse.<sup>295</sup> Such projects could be extended to African countries as well, and could ultimately benefit companies such as the Fry's metals company, which import lead for recycling towards the production of car batteries. These projects could also be extended to include other forms of wastes such as cadmium in used batteries of electrical appliances. Continued collaboration of UNCTAD with the UNEP, World Bank and UNDP in developing guidelines for the environmentally sound management of lead and other wastes, would also be recommended.

#### 3.4.8 UNEP and UNDP

In collaboration with the World Bank, the UNEP and UNDP set up the Global Environmental Facility in 1991 as a designated financial mechanism to help developing countries achieve global environmental benefits. As ozone layer depletion is one of the six areas which are covered by the Global Environmental Facility, the work of this mechanism could, based on previous discussions in Chapter 3.3, for instance, be seen as being relevant to aspects of toxic waste trade regulation.<sup>296</sup>

To this end, success stories of this mechanism include its project which seeks to promote the use of less toxic substances is the Prevention of Human and Environmental Exposure to DDT and other Toxic Pesticides and Strengthening of Malaria Control Programmes in Africa. During the course of international trade, South Africa and some other countries have sometimes imported DDT from certain developed countries for malaria control and other purposes. The GEF project seeks to assist countries in *inter-alia*, preventing the accumulation of DDT stockpiles for malaria control. The project also seeks to enlighten these countries on the viability and affordability of alternatives to DDT and other chemicals, when importing these chemicals for use. South Africa is one of the beneficiary countries of this project.<sup>297</sup>



### 3.4.9 United Nations Commission on Sustainable Development

The UN Commission on Sustainable Development was created by the UN in 1992, as a functional commission of the UN Economic and Social Council, with fifty three members. Its basic aims are to ensure effective follow-up to the UNCED (1992) and to monitor and report on the completion of the Earth Summit Agreements at the local, national and international levels.<sup>298</sup>

To this end, in 1997, the UNGA conducted a meeting on a five-year review of Earth Summit progress, under the auspices of this Commission. At this session, reports on the toxic waste trends within the three case study countries were submitted to the Commission. Among these reports were that no information was available on toxic and hazardous waste for Ghana. This means that the details and practices involved in toxic waste trade were not being closely monitored at governmental level. The activities of the BCRC in Pretoria are therefore very timely. In Côte d'Ivoire, efforts were being made by the administrative authorities to ensure that certain stockpiled toxic chemicals, hitherto imported from Europe, were sent back. As far as the presentation by South Africa to the UN Commission on Sustainable Development was concerned, toxic waste laws include the Hazardous Substances Act (1973), administered by the Departments of Health and Agriculture, the Fertilisers Act (1947), the SABS 0228 Code and the DWAF Minimum Requirements, all of which are discussed in Chapter 5. Also noteworthy is the fact that this country's Department of Health was involved in various activities of the IPCS of the WHO, the INTOX, which is the rapid response to poisoning, Prevention of Toxic Exposures and the Programme Advisory Committee. Regarding the incorporation of environmentally sound guidelines into certain manufacturing processes involving toxic waste trade, such initiatives are much needed to ensure sustainable trade patterns in such trade.<sup>299</sup>

### **(D) Other Multilateral Mechanisms**

#### 3.4.10 The WTO Committee on Trade and Environment

Where countries may not desire the importation of hazardous exports such as certain pesticides, pharmaceuticals and consumer goods, they may resort to the imposition of trade restrictions on these products, which they should have a sufficient amount of justification to believe to be environmentally destructive. Against this background, the Committee on Trade and Environment deals with trade matters that touch on

environmentally-related aspects of trade alone, and do not intend to act as trade regulations. Neither do they seek to interfere with/undermine the stipulations of the latter.

“...if problems of policy co-ordination to protect the environment and promote sustainable development are identified through the Committee on Trade and Environment’s work, steps taken to resolve them must uphold and safeguard the principles of the multilateral trading system which governments spent seven years strengthening and improving through the Uruguay Round negotiations.<sup>300</sup>

By so doing, this Committee could be seen as simply seeking to ensure the attainment of sustainable development goals including the fact that the more powerful nations may not, under the umbrella of the free trade concept, export potentially dangerous goods to less powerful LDCs’ territories, as has sometimes occurred. Simultaneously, third world countries, in their pursuit to improve their economic status, will export environmentally quality goods to industrialised countries.<sup>301</sup>

Under the principle of national sovereignty then, the WTO’s mechanism here could be seen in this sense as a means of helping the three case study countries and those of the continent to implement the objectives of the Bamako Convention. Though the Committee does not incorporate any specific clauses on toxic waste, its mandate and stand in the WTO *Carcinogenic Asbestos Case*,<sup>302</sup> for instance, demonstrate its commitment to assisting countries to reject imports of environmentally destructible substances including toxic waste.

Perhaps, with the proposed plans for a deeper collaboration with Basel, it may also be prudent for the Committee to establish explicit rules on toxic waste substances, indicating which ones are to be imported and which ones are to be exported. These could perhaps be annexed to the Article XX exceptions as well. Officials from the Committee could work in closer co-ordination with Basel, as already indicated, especially, when disputes arise, for instance. Much more of these tasks could be handled by the Basel Convention as well, as indicated in Chapters 3.1.1(c) and 4.4.3.

#### 3.4.11 Africa Stockpiles Programme

The Africa Stockpiles Programme could also be discussed as another important international initiative to combat the problem of toxic waste. This Programme is an inter-agency initiative by the UNEP, AU, FAO, UNDP, World Bank, Croplife International, Pesticide Action Network (UK), FAO, UN Economic Commission for Africa, NEPAD, UN Industrial Development Organization, the World Wildlife Fund and the African Development Bank. Its main objective is to remove all current stockpiles of obsolete pesticides from Africa and send them back to Europe for destruction. Over the past years, African countries had imported these pesticides from Europe. Already, the initiative has received \$25 million (US) from the Global Environmental Facility for its implementation which requires approximately \$250 million (US), including the institutionalisation of a prevention mechanism at the level of every participating country. The geographic coverage of the programme is all fifty- three African countries, including the three case study countries for this thesis. It was implemented in 2002.<sup>303</sup>

To these, it may also be recommended that the efforts of international NGOs such as Greenpeace can also not go unnoticed. Through their activities, these international mechanisms could be perceived to help implement the provisions of international environmental conventions such as Basel and Montréal. Though these organisations have not implemented any binding laws on toxic waste issues, their “Watch-Dog” role in promptly detecting prospective illicit shipments of hazardous waste, addressing problems which have arisen from such trade practices and sent back such shipments to their ports of origin, could also be seen as complementary to the efforts of UNEP and other international regulatory mechanisms for toxic waste trade issues.<sup>304</sup>

#### 3.4.12 Exclusive African Regional Efforts

##### 3.4.12 (a) Background

Discussions in some earlier portions of this thesis on the *Trail Smelter Arbitration* and its *sic utere tuo* principle, the Sandoz Spill, Love Canal, Seveso and Chernobyl disasters, made it evident that one case of a toxic waste tragedy can affect a series of other countries, especially when these other countries are neighbours.<sup>305</sup> In view of this, even if a given country A has the most adequate of laws, if those within close geographical proximity, countries B and C, did not possess such laws, A’s laws would be meaningless, since B and C, through illicit waste policy and practices, would eventually contaminate A. From

this perspective, the objectives of enacting a fine and highly ambitious model law to tackle foreseeable and unforeseeable illegal toxic waste practices may be futile exercises in reality if a great deal of emphasis is also not put on improving the legal regimes of the African regional mechanisms.

Hence, recommendations here include the need for the African regional mechanisms such as SADC, ECOWAS, EAC, CEMAC as well as the Arab League and the Indian Ocean Commission to endeavour to have uniform laws regulating trade and environment, and more specifically, toxic waste trade. The overall impression from research findings shows that these African mechanisms are not sufficiently equipped with such legal regimes. Using the Bamako Convention, these mechanisms can establish legal regimes as Annexed Protocols to their Treaty of Establishment. The main idea here is to also ensure that these laws are not simply spelt out, but that they are uniform and discrepancies are avoided. Hence, what is toxic is toxic to all fifty three African countries, otherwise trade barriers will be erected, contrary to the philosophy of Bamako and NEPAD. Already, mechanisms such as the French West African Sahelian Mechanism, which exists between the Francophone Sahelian countries, have attained such harmonisation and standardisation. Similar exercises must be exercised in small blocs, until it is possible to achieve such harmony on a continental basis. It would be advisable to adhere to the Bamako Convention's definitions and requirements then, to avoid differences and encumbrances.

Points could be borrowed from the toxic waste trade model laws for the three case study countries. The example of Germany's municipal law, the *Verpackungsverordnung*, that is, its Packaging Ordinance (1991), which has significantly contributed to a uniform and harmonised legal regime of EU member states' waste laws and also, the European Union's Packaging Directive in December 1994, is relevant at this point.<sup>306</sup> Germany's Ordinance measures the toxicity of packaging components and waste. This law establishes regulatory guidelines for the packaging of products and obligatory requirements which must be fulfilled for packaging waste for sale. This law foresees the "take back principle" by requiring manufacturers of products to return packaging wastes and furthermore, to ensure that they are recycled. This is facilitated through their participation in a private waste collection system for a fee.

Despite initial opposition from other EU member states; they eventually accepted the high standards which were set by Germany's Waste Packaging Ordinance in the EU toxic waste law. Consequently, as from December 1994, the EU adopted its Packaging Directive which seeks to reduce the environmentally harmful impacts of products through the cradle to grave cycle, by: (a) Minimizing packaging waste, thereby conforming to the preventive principle; (b) Forbidding the use of toxic and hazardous chemicals in packaging, and (c) creating incentives or requirements for recycling, reuse, or proper disposal of both the packaging and the products themselves. These aims, it seeks to accomplish, through the establishment of target ranges for packaging waste recovery and recycling, standardising methods of analysing product life cycles, measuring the toxicity of packaging components and waste and setting maximum concentration levels for heavy metals in packaging. These measures and particularly, the fact that the stipulations of this law were standardised, for every member, meant a lot of simplicity in member states having to ensure compliance.<sup>307</sup>

In the same way, through the model law being proposed at different municipal levels for the three case study countries, African regional and sub-regional mechanisms could gradually adopt a uniform approach to the definition of hazardous waste, by all ensuring that emphasis is placed on the health and ecological deterioration which could be threatened by such substances while simultaneously taking into consideration the financially beneficial aspects of commercialising certain categories of this waste. The same substances shall be rejected and accepted, as envisaged in the proposed annexes to these mechanisms, in conformity with Bamako.<sup>308</sup>

Furthermore, the same sort of penalties could be envisaged for offenders, by making stipulations for the imposition of higher fines and compensation. Offenders shall be made to clean up their mess, thereby, adhering to the polluter pays principle, as provided for, by the Bamako Convention. Provision shall be made that member states ensure that their companies and waste recycling firms adhere to stringent clean and green production methods, thereby ensuring the inclusion of the preventive principle. Provision shall also be made for the inclusion of the *locus standi* and class action principles, so that an individual or group of individuals whose rights are affected, has/have easy access to judicial redress. Other principles such as the mutual recognition doctrine and the need to ensure necessity and proportionality when rejecting substances, shall be included. All the

trading regimes of these regional mechanisms shall include concerns of environmental and sustainable development. In effect, while conducting trading and regional integration activities, the need to ensure environmental protection shall also be ensured.

Therefore, a recommendation could be conceivably made that the foundation and first preambular paragraph of trading regimes of these mechanisms stipulate that:

“Recognizing that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production and trade in goods and services, while allowing for the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and enhance the means for doing so in a manner consistent with their respective needs and concerns”...<sup>309</sup> Such a stipulation could be annexed as protocols to the trading regimes.

While making these recommendations, the following lessons could also be learned from the success stories of the NAAEC, the special environmental side agreement, which since its establishment as part of the NAFTA regime in July 1994, have stimulated a lot of interest in the US and environmental community, owing to its being the first environmental agreement as part of a trading regime of a regional mechanism:

Work within the trade and environment sectors could be neatly categorised into the four broad areas of Environment, Economy and Trade; Conservation of Biodiversity; Law and Policy; and Pollutants and Health.

Much work is being conducted in these areas such as Environment, Economy and Trade, where parties have adopted an analytical framework which focuses on Understanding the Linkages between Environment, Economy and Trade. Work here is dedicated to discussing the effects of the NAFTA on the environment. Such experiences in 1999, for instance, were documented and released in October 2000, at the conference of the CEC.

The development of action plans for the management of dioxins, furans and hexachlorobenzene in June 1999, is another achievement which cannot go unnoticed.

This trilateral initiative has resulted in the establishment of regional mechanisms for the management, phase-out or gradual elimination of toxic substances such as PCBs, DDT, chlordane and mercury. NAFTA member states have through these mechanisms, gained much education pertaining to the methods which are implored by their neighbours in the management of these substances. This evidently suggests that NAFTA member states have abandoned the importation and exportation of these substances.

Through the establishment of a working group by the CEC, indicators which monitor and evaluate each party's enforcement and compliance strategies have been developed. Amongst the various tasks which have been undertaken by this group, it has also worked on indicators related to hazardous waste, a subject which is of vital importance to member states.<sup>310</sup>

It may be timely for NEPAD and the rest of the African regional mechanisms below to incorporate some of these concerns into their trading activities. In cases where this would mean additional financial burdens and excessive workload, low-paid or unpaid internships and consultancies could be arranged, so that these issues be tackled now, as they are pressing and unsupervised trading activities may simply harm the environment.

Against the background of these discussions, an analysis is now made of the work of the African regional mechanisms and how they could be better equipped to regulate toxic waste trade.

#### 3.4.12 (b) NEPAD

Certain officials of NEPAD in Dakar, Senegal and Midrand, South Africa, have expressed the commitment of the NEPAD to the integration of sustainable development and environmental protection into the activities of NEPAD, as illustrated in the establishment of its Environmental Initiative. This initiative is timely, considering Africa's prioritisation of poverty and underdevelopment in economic development to the extent that such a low profile which has been accorded to environmental protection. Therefore, the Environmental Initiative of the NEPAD is a basic recognition that focuses on economic development and an aim to enable the appreciation of economic and socio-political effects of environmental degradation and protection. As far as toxic waste is concerned, the NEPAD secretariat is committed to working in close

collaboration with the other international agencies in implementing the African Stockpiles Programme.<sup>311</sup>

However, within the framework of this organ's Environmental Initiative, there is still room for recommendation. Right from the onset when these goals are being implemented, it is suggested that explicit rules which recognise the need for promoting free trade while implementing environmental concerns, be included in the stipulations of the NEPAD.

Furthermore, the Environmental Initiative of NEPAD could incorporate specific rules on which categories of toxic waste are regulated in free trade, and which are banned, from developed into developing countries. This assignment could be carried out in collaboration with the Secretariat of the Bamako Convention, and where necessary, that of the Basel Convention, for the avoidance of unnecessary expenses and duplication.<sup>312</sup> Alternatively, experts from NEPAD could work with the Secretariat of Bamako on dispute resolutions and report back to NEPAD. Another body could also be set up to work in partnership with the AU, in order to review the status of waste recycling projects and the status of toxic waste issues in the continent. These sort of rules will be in conformity with the model laws being put forward for the case study countries. Though the NEPAD currently does not undertake any work in this regard, these proposals may aid its workings on environmental issues in the long-run, as environmental matters inevitably include toxic waste regulation.

Another recommendation may be for a very efficient dispute settlement/arbitration mechanism, to regulate all matters, including trade and environmental issues, especially toxic waste trade offences between/among African states, and also, their respective companies. Through the establishment of these recommended laws, these three case study countries others within the region and all the African regional mechanisms would be able to combat such illegal shipments in a concerted fashion. The role of NEPAD in helping enhance the objectives of Bamako is also evident here. As an initial step, the African Exclusive Mechanisms could initiate such assignments, and ensure uniformity in classification of hazardous waste and trade and this be gradually merged on a regional level.



One important tool which the NEPAD has developed is the African Environmental Information Network.<sup>313</sup> The basic aim of this mechanism is to help disseminate information via the internet and the media, concerning the activities of the NEPAD in terms of its environmental programmes, such as those on food security and sustainable development, *inter alia*, in the continent. It is strongly suggested that in light of the recommendations for the inclusion of laws on trade and environmental affairs, as well as toxic waste, in NEPAD, such information form part of the NEPAD Environmental Information Network. Once again, this could work alongside the AU's website on the workings of Bamako, which has been recommended above. This could be easily facilitated as the NEPAD structure has now been legally incorporated into the workings of the AU structure.<sup>314</sup> This should actually enhance public participation in the process of NEPAD, in these matters and facilitate relevant research, for example, as discussed in Chapter 3.4.2(f).

#### 3.4.12 (c) EU-ACP

Through this Agreement, the three case study countries and other ACP countries were authorised to reject the importation of hazardous waste from EU countries into their territories.<sup>315</sup> However, this Agreement has phased out into the Cotonou Agreement, the most recent stage of the agreement within the EU-ACP FTA. Under this new Agreement, member states are *inter-alia*, simply required to be mindful of issues relating to transport and disposal of hazardous waste while collaborating to promote environmental protection and sustainable use of natural resources.<sup>316</sup> This means that when these developing countries, under the principle of national sovereignty wish to ban or regulate the importation of such substances into their territories, they might have to rely on the Basel or Bamako Convention, or other bilateral treaties negotiated with countries of the first world.

It may be suggested that since these issues are to a large extent still quite new to the African regional mechanisms, all the projects discussed in this sub-chapter could perhaps be implemented by the UNCTAD, UNEP and other international bodies, with the involvement of the SADC, ECOWAS, EAC and the other FTAs here. At the regional level, the impact of these projects could be felt and the workings of these mechanisms enhanced thereby.

#### 3.4.12 (d) Southern African Development Community (SADC)

The Environmental Sector of SADC was created in 1993/1994, even though environmentally-related areas such as food, natural resources and agriculture were covered at the original inception of the SADCC in 1980.<sup>315</sup>

Regarding the environmental sector, it has been observed that while SADC has expressed its commitment to promoting the seven principal goals of UNCED (1992) Agenda 21, the 1997 SADC Sub-Regional Report indicates that the following toxic waste-related areas of the Agenda are not reflected in current SADC policy:

- Goal 19, which relates to strengthening the management of toxic chemicals. The following tasks will be undertaken in this regard: (a) Expand and accelerate the international assessment of chemical risks (19.14-19.23); (b) Harmonise the classification and labelling of chemicals (19.28-19.32); (c) Exchange information on toxic chemicals and risks (19.39-19.43); (d) Strengthen national capabilities for chemicals management (19.59-19.65) and (e) Prevent illegal international traffic in toxic and dangerous products (19.75).

With regard to the theme of this thesis, Goal 21, which pertains to strengthening the management of solid wastes and sewage includes: (a) Minimising wastes (21.10-21.15); (b) Maximising environmentally sound waste reuse and recycling (21.19-21.26); and (c) Ensuring environmentally sound waste treatment and disposal (21.30-21.37).<sup>317</sup>

However, these areas are of importance to the SADC, which is working on how to prioritise these areas in its planned laws on illegal trade in toxic waste. While much legislation has not been developed in the area of hazardous waste, mining and industrial waste are being accorded much priority within a lot of SADC countries. Asbestos mines, in South Africa and Zimbabwe, from where asbestos are extracted for exports, have severely caused ecological damage and lung problems in human beings. For instance, there has been a widespread contamination of soils. In the case of Botswana for instance, there has been massive atmospheric pollution from the Selebe-Phikwe copper mines, which exports copper from Botswana to the extent that the government there intends closing these mines, as there are no developed environmental laws in this area. In light of these, other catastrophes such as the impact of Shell International's Petroleum activities

in Nigeria and the consequent environmental damage there, SADC is currently working out a model law to govern clean production and the adoption of strict standards to avoid environmental degradation during the production and life cycle of the mine and after closure.<sup>318</sup>

Laws covering industrial waste are also geared towards ensuring clean production methods and waste disposal guidelines. In this regard, the main approach adopted by SADC to formulating these laws would be to adopt the preventive principle to foresee the otherwise harmful effect of mining and industrial activity and pre-empt such trends. The past is rectified and the future foreseen. The problem here is how to ensure compliance at municipal levels. The challenge in formulating these laws is for SADC to standardise and harmonise these municipal laws on activities involving toxic waste exports, so as to facilitate trading in these and other forms of toxic waste by companies, from one country to another. Through this, the maintenance of a clean environment is not compromised and current patterns of atmospheric pollution resulting from toxic waste emissions are *inter-alia*, departed from.<sup>319</sup>

SADC further plans to include in its toxic waste laws, stipulations which specifically protect workers in chemical industries on the utilisation of chemicals and toxic waste. This is actually very remarkable and must be encouraged, as it facilitates having to establish the causal link requirement in establishing a claim and the operation of the *locus standi* and class action principles. This inclusion should further be extended to other persons within the surrounding communities where such industries or factories operate, so that when their rights are threatened, they can be entitled to effective judicial redress.<sup>320</sup>

SADC has also commenced assisting companies in member states in the collection of used oil for collection, recycling and export to other SADC member states. In the past, this product used to be dumped on the ground. However, it is becoming mandatory that this should now be collected. SADC is also contemplating making it a requirement that used torches and other electrical appliances are not thrown away by consumers but sent back to the companies from where they were purchased, for recycling. Though there are no current statutes on recycling, SADC intends developing these and ensuring that they

include penalties such as the withdrawal of toxic waste recycling licenses of companies which flaunt the recycling rules.<sup>321</sup>

#### 3.4.12 (e) Economic Community of West African States (ECOWAS)

Regarding hazardous waste management, ECOWAS and countries of West and Central Africa have established a 'Dumpwatch', which has resulted from the Basel Convention, and to an extent, the Bamako Convention. The Dumpwatch is basically an advance warning agreement among West and Central African states with diplomatic representation in European capitals. This agreement requires that European governments, international NGOs and co-operating institutions and individuals provide information to African diplomatic missions on the movement of hazardous wastes from Europe to Africa. This information is then urgently transmitted to responsible institutions in Africa for necessary action. Though the Dumpwatch has been observed as a rather long-term process, it has been useful in aborting a number of attempts to illegally export toxic wastes to Côte d'Ivoire, Ghana, the Democratic Republic of the Congo and Nigeria.<sup>322</sup>

However, the emissions of toxic waste and gases from imported second hand cars in many ECOWAS member states, such as Senegal, for example, and the problem of importing illegal pesticides into this country, cause serious instances of pollution. This could spill over to the Gambia and other neighbouring countries, at least within the sub-region. Therefore, a much stricter law still needs to be developed at both municipal and regional levels.<sup>323</sup>

The French West African Sahelian Mechanism could serve as a useful guide with further recommendations, such as the need for an explicit law on toxic waste trade within the ECOWAS legal regime, so that there is harmonisation within ECOWAS on matters relating to toxic waste trade. Such a law could be annexed to the protocol establishment to its treaty.

#### 3.4.12 (f) Common Market for Eastern and Southern Africa (COMESA)

The COMESA Treaty provides for the preventive and polluter pays principles.<sup>324</sup> This is commendable and could further be specifically extended to hazardous waste trade regulation, as highlighted in Articles 4(c) and 4(e) respectively, of Chapter 6, on the model treaty for African regional and sub-regional mechanisms.

In Article 125 which deals with the prevention of illegal international trade in toxic and hazardous substances, the COMESA Treaty exhorts Member states to: adopt a common approach against illegal dumping of toxic wastes within the Common Market from either a Member State or a third country; share information on clean and green technology in waste production and energy systems; accede to international environmental conventions which aim at environmental protection, and include sound environmental principles in all sectoral activities.<sup>325</sup>

As far as the “illegal dumping of hazardous waste” is concerned, this is indeed a key issue. However, it is not confined to illegal dumping. So that, the key question here is in fact to differentiate between inter- and extra common market trade in hazardous waste, that is, whether the common market will allow the importation of waste from outside or only permit trade within the common market. It is therefore suggested that for more efficacy and clarity in implementing this portion of the Article in this treaty, it is stated that the “trading, exporting, importing, dumping”, for example, of hazardous waste, is prohibited by Member States who adopt a common position in this regard, subject to their municipal laws on toxic waste trade, which for the purposes of this thesis is Annex 4 of the model law. Then, under very limited circumstances and upon providing ample evidence in documented form to other members, a Member State can either import or export a particular hazardous substance which is forbidden, or prohibit a substance which is otherwise permitted within the Common Market. Under the model treaty for African regional mechanisms in Chapter 6(A), this has been extensively provided for.

On the other hand, in comparison to other African regional and sub-regional mechanisms, the Treaty of COMESA is ahead in terms of regulating hazardous waste activities at sub-regional level. However, in Chapter 6(A) of this thesis, more recommendations are also made in addition to these provisions for COMESA and any model African regional mechanism, for the most effective regulation of hazardous waste trade at the sub-regional level.

#### 3.4.12 (g) East African Community (EAC)

Current work within the community is focused on the establishment of a customs union and the attainment of a common external tariff, for the community. This should be

completed sometime in 2004. As a result of this, much study/work has not been devoted to the regulation of toxic wastes from first world countries into these three states. However, once the common external tariff is launched, members of the community hope to begin a study and work on the importation of toxic waste into their territories.<sup>326</sup> It is noteworthy though that certain pressing problems involving toxic waste disposal exist in the countries of the EAC. Examples are the prevalent uncertainties on facts, figures and data concerning how used lubrication oil and other petroleum oil is disposed of in Kenya and obsolete pesticides disposal in Kenya.<sup>327</sup> This means that, the exact amount of toxic waste and even the specific type(s) of toxic waste which are being imported into or exported out of Kenya may not be subject to strict governmental control and laws.

In the light of such trends and other environmental problems related to toxic waste trade issues in EAC member states, it may be recommended that interns and consultants be hired as quickly as possible, to start working immediately on this area, prior to the attainment of the common external tariff. With such on-going practices, harmful environmental effects could be almost not possible to rectify or costly, if neglected now. In case of budgetary constraints, these assignments could be lowly paid or unpaid. Such consultants could also begin assisting and developing hazardous waste projects, such as those relating to the recycling of household wastes in Kenya, and how this can be extended to other forms of waste, such as medical and agricultural waste. Ways in which these forms of waste could be traded across borders might also be considered. The research conducted in this area could then result in the enactment of a law on toxic waste trade and the incorporation of environmental concerns into the trading regimes of this regional mechanism.

#### 3.4.12 (h) Economic Community of Central African States/ La Communauté Économique et Monétaire des États de l'Afrique Centrale (ECCAS/CEMAC)

Much work has generally not been carried out in toxic waste trade in this region which has been ravaged with war and political instability.<sup>328</sup> However, the CEMAC and ECOWAS have set up the Dumpwatch as stated in Chapter 3.4.12(e). With the re-establishment of this organisation, assignments on formulating toxic waste trade laws could be facilitated.<sup>329</sup> The establishment of toxic waste trade laws in a regional mechanism such as NAFTA, indicated above, could be borrowed and adjusted for this region.

### **3.4.13 Regional Efforts Involving Africa**

#### **3.4.13 (a) The Arab League**

In this mechanism, there is the dire need for toxic waste laws, with regard to industrial activities of Israel and other countries in this region, which pollute the Suez Canal.<sup>330</sup> Egypt in particular has an adequate municipal law which regulates the importation and exportation of toxic waste. There is an Inter-Agency Permit Scheme under this law and penalties are also imposed.<sup>331</sup> Following the EU and German examples above, such lessons could be included into the model law for the Arab League, to ensure uniformity within the region's toxic waste laws.

#### **3.4.13 (b) Indian Ocean Commission**

As this area comprises many islands, environmental legislation and policy in the Commission focuses more on the protection of marine environment and how to ensure that coastal areas are not polluted. In this regard, environmental considerations are now deemed to be an important tool in national policy-making and are included in the curricula of primary education, *inter-alia*.<sup>332</sup> A fixed legal mechanism on toxic waste is yet to be developed though and is recommended, as in the above-mentioned cases.

### **3.5 Implications of International Environmental Legal Protection for International Trade**

Since this thesis dedicates itself to the debate between free trade and environmental protection for the one part, it may be appropriate at this point to ponder on the implications of these soft law principles, international environmental law treaties and the other abovementioned mechanisms for global trading practices. Furthermore, relevant examples in hazardous waste are also analysed in this regard. These discussions could in a sense be seen as leading to the trade and environment debate, which is reviewed in Chapter 4, while juxtaposing the two spheres against each other. In this regard, the more general impact of environmental principles for global trade is briefly depicted, prior to the more specific issue of how principles such as sustainability and its attendant preventive and precautionary principles, could impact the trading positions of the three case study countries and their respective African regional mechanisms in toxic waste trade and the sort of lessons which could be drawn for the model law of this thesis. From the series of discussions and case studies, it could be reasonably inferred that the sustainable development, preventive and precautionary principles, as well as the

membership of the three case study countries to the multilateral conventions in this sub-chapter, can be a useful tool in according these countries better quality toxic waste products in international trade, thereby, providing them with a greater degree of market accessibility and also, increasing their level of green and clean technology. These international environmental mechanisms could also be used to marginalise the three countries in international trade as well. These must therefore reflect in the model law to accomplish positive goals and avoid negative pitfalls.

### 3.5.1 Benefits

#### 3.5.1 (a) Product Substitution and Improved Market Access

Incorporating environmentally sound principles into business activity on the one hand results in the amelioration of the quality of products in the global market, which in turn leads to an improved market access for these products. For Najam and Robins, within five years from now, there will be no access to international markets for companies that do not show this respect for the environment. It is becoming fundamental to international trade.<sup>333</sup> On the other hand, such insistence could be also hurtful to developing countries, as indicated in the ensuing sub-chapter.

Consequently, in Ghana, sound manufacturing practices on the part of Ghanaian farmers in the pineapple industry, enable massive exports of such products into Germany and Belgium. For the same reasons, mangoes are successfully sent to the UK and Luxemburg, and okra, to the Netherlands. In these situations, these products are cultivated without the use of obsolete chemicals and pesticides during the manufacturing processes within the farming industry.<sup>334</sup> Hence, these have formed some of the basis of Ghana's success stories. Similar reasons also account for Ivorian success in the cocoa and coffee industry, as far as the exports of these products to the UK are concerned.<sup>335</sup>

Furthermore, in a joint initiative launched by the FAO and the government of the Republic of Ghana, thirty local Ghanaian farmers have been trained to adhere to the sustainable agricultural practices in their farming methods. Farmers, through their participation in these sessions, have been exposed to the ways in which they can use these environmentally acceptable biocides, fertilisers, and integrated pest management. The resultant benefits of this system are that farmers are not burdened financially with finding the means to clean up the pollutants effects if they had used environmentally



contaminous chemicals and fertilisers in their manufacturing processes. Furthermore, they are able to gain increased access to the markets of the EU, owing to better quality products in this sense.<sup>336</sup>

Ghana's Tema Oil Refinery, after importing crude, unrefined petroleum from Nigeria, refines this oil into gasoline for local consumption and residual fuel oil for exportation to Europe and the US, using quality assurance tests and other environmental standards. Exports to the US and Europe are possible owing to the stringent environmental considerations in the refinery process of this company.<sup>337</sup>

The Johannesburg-based Fry's Metals Company requires that companies from African countries such as Nigeria, Zambia, Mozambique, Zimbabwe, Botswana and Swaziland, who wish to export lead scrape to Fry's for recycling, conform to certain environmental standards. Therefore, at its plant in Johannesburg, when importing lead scrape for recycling, Fry's metals ensures that these other companies obtain an ISO 14000 permit from the Government of South Africa for this importation to occur. This permit is an environmental scheme which ensures that the lead scrap is being imported in an environmentally sound manner and will not simply pollute South Africa's environment. The South African Bureau of Standards also checks on Fry's company each year to ensure its adherence to environmental principles during its recycling process. Such an adoption of the preventive and precautionary principles, and other high quality environmental standards, enables the batteries from this company to be exported into other African countries and those of the EU.<sup>338</sup>

In the case of the Ivorian Société Ivoirienne de Raffinage, the integration of environmental principles into the refinery processes of petroleum enables the end product, that is, refined petroleum and residual fuel to be marketed to France, amongst other regional and international markets.<sup>339</sup>

In each of these cases, it may be difficult to envisage a situation where products from the third world are able to gain market accessibility into first world markets, without the inclusion of the relevant environmental principles elucidated above.

Therefore, certain farmers in parts of Ghana's Cape Coast and Tachiman have encountered different experiences as far as toxic chemicals and waste are concerned. In this scenario, when they utilised dangerously toxic substances such as chlordane in agricultural processes, for hastily ripening tomatoes and bananas, these products were rejected by EU markets. There were resultant complaints from Ghanaian farmers about discrimination in international trade.<sup>340</sup> Clearly, with Ghana's ratification of the Rotterdam Convention for example, the sort of chemicals and pesticides to import would be clearer and those that are deemed to be obsolete avoided.<sup>341</sup>

Admittedly, for the industries within the three case study countries, including environmentally principles may be too costly and burdensome, and hence, not a very easy target. However, with the principle of the common but differentiated responsibility, where Rotterdam and Basel offer technical assistance to developing countries, this setback could be gradually overcome.

Under this principle, the willingness of France to assist francophone African countries, to improve their environmental standards in terms of toxic waste recycling and treatment,<sup>342</sup> is highly commendable. For the purposes of this thesis, such a practice is important in fulfilling the environmentally sound management of waste criterion, when exporting toxic waste. This will benefit countries such as Côte d'Ivoire. Then again, for the proposed treatment and recycling projects of waste including those emanating from households for example, the highly recommendable environmental training being offered by the Secretariat of the Basel Convention, through its Dakar and Pretoria Centres, to benefit participants in this area, should not be underscored. The incorporation of the respective Basel guidelines is a useful tool which can enable the final products of these recycling processes to be of a high quality which will meet international standards and survive competition within the African and international markets, when some of these forms of waste are exported and imported to other Africa countries in their recycled form.<sup>343</sup>

Furthermore, all of Basel's project proposals for incorporating better environmental principles into waste recycling activities of the three case study African countries and others within the continent, are also useful tools which could be enhanced. While reinforcing the principle of common but differentiated responsibility, these projects seek

to familiarise company staff and managers as well as other stakeholders involved in the management of waste, with better expertise on how to implement the sustainability principles, and thereby, ameliorate the environmental quality of their products. These could obviously enable the waste products from these countries to gain increased market accessibility to those of developed countries.

It is further recommended that South African, Ghanaian and Ivorian institutes liaise with institutes such as the International Institute for Sustainable Development, the International Institute for Environment and Development, as well as the Centre for International Environmental Law in the developed countries, to explore the possibility of teaching such programmes to managers and leaders of industries in the three case study countries. Issues such as pollution prevention and the need to avoid environmental evils of free trade, through the US demand for the gradual phase-out of mercury in thermometers and fluorescent tubes,<sup>344</sup> and the specific worthy alternatives to be used there, include the vital issues where knowledgeable experts could impart some life-long beneficial lessons to management and leadership of companies in these African countries. This is important, especially, as African countries are likely to be exporting all sorts of metals and substances such as lead, mercury, for recycling, as well as other substances which must all be recycled for trading in a prudent manner. Such a programme could be set up in South Africa, Ghana or Côte d'Ivoire, for instance, and could eventually extend to participants from all African countries.

The converse would be the abandonment of such principles and the usual complaint of marginalisation in the global economy. The example of Mexico could be followed in this regard, for when this country conformed to environmentally sound processing methods, it was able to compete with industrialised countries such as the USA and Canada in many trade areas, including those touching on toxic waste issues. Mexico was not marginalised in its NAFTA waste trading activities involving the two first world countries.<sup>345</sup>

#### 3.5.1 (b) Transfer of Environmentally-Beneficial Technologies

By adhering to environmentally sound procedures which are now being insisted upon, there could be a development of the utilisation of environmentally developed technologies in developing countries and the three case study countries, which in comparison to their trading counterparts in the first world, recently lack these facilities.

This view could be seen as conforming to Agenda 21 of the 1992 Earth Summit, which reiterates the need for countries in the global market to make use of environmentally sound technology, as production methods that are less polluting than previously used methods, are said to consume less energy and fewer resources, and recycle wastes or handle them more acceptably.<sup>346</sup> These are technologies which utilise processes and produce products that use the biosphere in the most prudent manner throughout their life cycles. While companies undergo intensive training programmes for the inclusion of stringent environmental principles, they also use environmentally quality technologies and not outmoded, polluted machinery or other. Examples and case studies are cited here to illustrate the technological benefits which these three case study countries derive by incorporating environmental concerns into toxic waste trade.

In parts of West Africa such as Ghana and Côte d'Ivoire, farmers within some farming communities are intent on abandoning the use of environmentally harmful practices in agricultural processes. Some of these practices centre on obsolete pesticides such as DDT, dieldrin, chlordane, which after being imported, are sometimes used by farmers in ripening products during agricultural processes. Consequently, a lot of outmoded technological equipment is also utilised in these communities. These include leaking spray cans. As recommended by ECOWAS and FAO, these practices need to change so that these farmers adopt more environmentally friendly equipment. This recommendation can only come into effect if these farmers adhere to stringent environmental principles.<sup>347</sup> Over here for instance, it is the lack of sound environmental principles of soft law in waste management and trade which results in a lack of sophisticated technology.

Furthermore, the Basel Convention Training Programmes ensure that trade regulation in toxic waste also leads to the transfer of environmentally-friendly technology from developing countries into developing ones. Since the three case study countries become environmentally friendly and are acutely aware of potential environmental hazards which are involved in toxic waste trade, imports of any substances are carefully evaluated. In this advent of trade in services for instance, computers, thermometers, television sets and other electronic equipment are imported into the three case study countries on condition that these electricals are not deleterious to the environment.<sup>348</sup>

Then again, subsequent to the Rabat Meeting on Hazardous Waste Transfer in January 2001, it was revealed that Mauritius has developed a very sophisticated incinerator for disposing of hazardous waste.<sup>349</sup> Through importing crude oil for refinery and export, and with emphasis on the adoption of environmentally sound principles, there is the gradual transfer of environmentally sound technology since these are the facilities which operate these substances.<sup>350</sup> In the case of the proposed recycling of waste projects in the three case study countries for all forms of waste recycling, the technological capacity for recycling these projects becomes boosted and incorporate sound environmental principles. A situation could be conceived whereby unemployed people in poor communities, with sufficient governmental support, are able to recycle all sorts of waste for exports,<sup>351</sup> with the aid of environmentally beneficial technologies, which are established and transferred, as such forms of trade increase. This ultimately benefits the country within which such a project is situate, as it leads to the establishment of environmentally-inclined technological facilities there.<sup>352</sup>

### 3.5.2 Constraints

#### 3.5.2 (a) Disguised Protectionism

It has often been noticed that environmental regulations may purposefully or accidentally create new forms of protectionism. While the integration of environmental considerations into trading regimes is increasingly on the rise, especially in developed countries, in developing countries' municipal systems as well as regional mechanisms, this vision is yet to be realised to the fullest extent. The main problem faced by developing countries then is that these environmental standards which may be for genuine environmental protection or may be subtly discriminatory in nature, may be too stringent for them to grapple with.

These concerns notably date a long way back in history, as highlighted in Chapter 4.1. Therefore, one concern of the relationship between environmental law and multilateral trade for developing countries is that, the more powerful countries, could, in a subtle way, reject the products of developing countries which may not be so sophisticated or refined, under the pretext that they do not meet the required standards of the developed countries. These issues have further been highlighted throughout the decades, before the 1991/4 *Tuna-Dolphin* Cases and the 1998 *Shrimp-Turtle* Cases,<sup>353</sup> and were generally

echoed by developing countries' representatives during the recent WSSD in Johannesburg in 2002.

Hence, in 1939, Percy Bidwell, while writing in connection with certain treaties at that time, observed that countries could easily resort to economic protection under the guise of biological protection. He cites the 1882 Commercial and Maritime treaty between France and Great Britain, which was a declaration that each party "reserves to itself to decide" the necessary restrictions for "sanitary reasons" to prevent cattle disease or the destruction of crops. Within a few years, this exception became rife in many full-scale commercial agreements.<sup>354</sup> Such biological protection, from the perspective of this thesis, could be translated to mean environmental protection.

From this point of view, Ambassador Fernando Jaramillo of Columbia stated during a November 1993 UNGA debate while criticising developing countries' approach to liberal trade flows: "...protectionism has intensified. Trading by developed countries has been affected by ever more sophisticated restrictive practices".<sup>355</sup> In the *Tuna-Dolphin Case*,<sup>356</sup> discussions touched on the lack of market accessibility of México to US markets because of supposedly inadequate environmental methods adapted in the harvesting of fish. The same sort of problems were faced by India, Pakistan, Malaysia and Thailand in the *Shrimp-Turtle Case*.<sup>357</sup> In these cases, the main apprehensions on the part of LDCs lie in the fact that developing countries may stipulate what sort of substances they should import and what to export. From one angle, this clearly violates the principle of national sovereignty, for these countries are entitled to import whatever substances they deem expedient to the promotion of national economic activity, as evident for example, in the preambular paragraph of the Basel Convention.

This also leads to the problem of marginalisation of developing countries, as they cannot meet industrialised countries' requirements of the high environmental standards which must be adopted in their manufacturing processes lest they are rejected completely. This could in turn lead to the potential gains of environmental and trade-related conventions being derived by the more powerful, who will obviously get richer and LDCs get poorer. It has been said, with regard to the marginalisation of the LDCs at the December 1996 WTO Ministerial Decision meeting in Singapore: "The one-sidedness of the consensus-building process towards the interests of the industrial nations should be seen once again in Singapore".<sup>358</sup>

Furthermore, Najam and Robins observe with regard to Seattle that both northern policy makers and Northern environmental groups took no notice of developing countries' agenda. They further provide the claim by the *Guardian* on this issue: "developing countries were bullied, sidelined from the negotiations and patronised".<sup>359</sup> This kind of trend clearly violates the national sovereignty of developing countries and starkly contradicts multilateralism, which is greatly required in toxic waste trade regulation, an environmental area of global concern.

However, even among developed countries, such cases are not uncommon and should not be merely deemed to be situations involving high environmental standards which are used as disguised restrictions between the first and third world. This is exemplified by the *US-Canada Herring Salmon Case*<sup>360</sup> where the US rejected herrings from Canada on the basis that the size of Canadian lobsters were too small and therefore did not meet the required standard. However, that was the size always produced by Canadian cold waters. This could be applied to LDCs as well and is sometimes the case, in relation to exports from developing to developed countries.

Another important perspective then, to consider when discussing these matters is that in principle, sustainable development and environmental considerations have genuinely come to play a dominant role in contemporary day international relations, as already indicated.<sup>361</sup> Certain EU cases also validate this claim. For example, in the case concerning Greek restrictions on the import of frozen chicken infected with salmonella, the ECJ upheld Greece's application of the precautionary principle in disputes over internal barriers to trade. While justifying Greece's approach to these measures and its adoption of the precautionary principle, the ECJ recalled that "it has consistently ruled that where the data available at the present stage of the scientific research do not make it possible to determine with certainty the number of pathogenic micro-organisms above which a food product represents a danger to health, in the absence of harmonisation in this field, it is for the Member states to determine, with due regard to the requirements of the free movement of goods, the level at which they wish to ensure that human life and health are protected".<sup>362</sup>

In intra-African and global waste trade, the challenge then, is to ensure that developing countries' industries and the waste recycling projects of these three case study countries, as well as other toxic waste companies, adhere to the highest environmental standards possible, to gain market accessibility to world markets. For example, owing to the use of obsolete toxic chemicals to produce bananas and tomatoes, certain farmers in Ghana and Côte d'Ivoire have persistently complained of being effectively shut from the agricultural markets of industrialised countries.<sup>363</sup> If these products are cultivated with the use of pesticides which are not deemed to be obsolete by international standards, for example, dieldrin instead of chlordane, such practices could be avoided. Here lies the usefulness of adhering to Conventions such as Rotterdam and Stockholm, which usefully guide countries on adopting the right kind of pesticides and toxic chemicals in international trade, based on a prior comprehensively detailed information and assessment of prospective chemicals to be imported. It must also be stressed that mechanisms have been put in place which could help address this problem. For example, the fact that through the common but differentiated responsibility principle, the BCRCs for instance, are offering training to managers and other experts in developing countries on meeting these standards for instance, is remarkable in this sense.<sup>364</sup> In this sense, Rotterdam, Basel and Stockholm could be seen as international environmental conventions which aid the three case study countries, so that they are not discriminated against in international toxic waste trading activity.

One basic aim is for these products to gain market accessibility in terms of intra-African trade. For instance, the recycling of current household waste could be started on a small scale, and gradually, some of the recycled products such as the manufacture of carpets from used towels, and others, be sent to other West African markets, then those of the continent and eventually, other parts of the world. The concrete efforts of the Basel Convention in further seeking to implement various project proposals at municipal levels, to assist these countries and their respective waste projects to attain the highest possible environmental goals in their manufacturing processes can also be commended in this regard.<sup>365</sup>

One meaningful suggestion may be for the participants from various companies which participate in these programmes to be able to disseminate information with colleagues throughout the various parts of the countries and continent, about the sort of environmental lessons learned, their applicability to waste recycling and trade across



borders, production processes and in relevant cases, how these lessons can be adapted. It is imperative that every participant to these training sessions of Basel produce documented reports for this purpose, coupled with periodic meetings at the municipal level, with international experts from the Basel Secretariat, the Bamako Convention Secretariat and the BCRC centres to chair some of these sessions and workshops. With the realisation of these hopes and recommendations, one could conceivably end up with a situation where there are more success stories, similar to those of Ghana, in its exportation of environmentally sound horticultural products to the EU, without obsolete toxic chemicals and Côte d'Ivoire in its exportation of quality cocoa products to the UK.

The issue of funding them and training African countries' trade experts in this area is so important then, lest they are completely thrown out of the global market. The earlier they equip themselves on a regional level in solidarity to bridge these gaps and earn more finances for addressing these problems, the better. Once again, the work of the BCRCs, the Rotterdam and Stockholm Conventions, as indicated in this sub-chapter, cannot go unnoticed.

Furthermore, in the three case study countries, the adoption of the ecolabelling scheme by the proposed Inter-Agency Permit Committee in Chapter 6 not only for toxic waste imports, but also, toxic waste exports<sup>366</sup> could also increase the market accessibility of its products into the first world and elsewhere, as this scheme is being adopted worldwide and in many countries.

### 3.5.2 (b) Extraterritoriality and National Sovereignty

Extraterritoriality in international law involves the interference of one state in another's affairs in national policy and other matters pertaining to the internal affairs of another. In this sense, it could also be said that extraterritoriality contradicts the international law principle of national sovereignty which entitles every state to decide its domestic policies in whatever way it deems prudent without external interference from other countries.<sup>367</sup>

If developing countries are not adequately equipped to meet the requisite environmental standards in international trading activity, the industrialised countries could possibly create a situation whereby developed countries directly or indirectly violate the extraterritoriality principle, thereby stipulating the national environmental standards to be

adopted by developing countries and other countries in manufacturing their exports. Then again, standards could be imposed on them as to how LDCs should implement decisions relating to peculiar national environmental policy.

In this regard, Neumayer opines that, this could “enable more powerful countries to coerce less powerful ones into submission to their own idiosyncratic regard of what constitutes environmentally proper behaviour”.<sup>368</sup> The incorporation of PPMs, described above, could lead to developing countries stipulating what modes of production must be utilised in making products, and not so much attention on the quality of goods themselves, with developing countries at the losing end.

On the issue of extraterritoriality and national sovereignty in this regard, Ziegler and most legal authors consider that in EU terms for instance, the geographical scope of Article 30 or the rule of reason “justifies only national measures for the protection of domestic territory, as a Member State’s responsibility under the principle of territorial sovereignty does not go beyond national borders”.<sup>369</sup> On the other hand, Kräemer belongs to the school of minority dissenting opinions, who hold the view that such extra jurisdictional measures are permitted by the Treaty on European Union, because “the requirement of nature protection and, more generally, of the protection for the environment is not geographically limited” in the Treaty on European Union. Consequently, “a Member State may protect humans or the fauna and flora in another Member State whether there is threat to health or life of animals or plants”.<sup>370</sup>

From this viewpoint, Schoenbaum opines that creative unilateralism may be permissible in international trade, for the purposes of environmental protection. Schoenbaum opines that though extraterritoriality and unilateralism are not permissible in international law, this may be allowed, while taking into consideration, certain emerging doctrines such as the doctrine of opposability in international law, with due regard to scientific certainty. Opposability, as first enunciated by the ICJ in the *Norwegian Fisheries Case*, (a) enables a state to assert an important interest in ways that are not strictly speaking, consistent with international law; and (b) serves to enhance the adoption of new international law norms where necessary to clarify “grey areas” of international practice.<sup>371</sup>

Therefore, this doctrine could be seen as a creative agent of change and an important part of the international law “legislative” process.

Though the ECJ case law is also not very clear on this matter, existing case law seems to endorse Ziegler’s majority opinion. For instance, in the *Scottish Red Grouse Case*, it was held that the Netherlands was not entitled to impose an import ban on Scottish red grouse, on grounds of bird protection, if the prohibition of such species has not been deemed to be endangered or migratory within the relevant Council Directive on the conservation of wild birds.<sup>372</sup> Of relevance to this point is Neumayer’s hypothetical situation on the 1972 EC directive requiring Member states to adopt legislation establishing similar standards for vehicle emissions. If Sweden enacted laws which required stricter standards, on the one hand, air quality in this country and in neighbouring countries would improve. On the other hand, such a law could have a disruptive impact on the manufacture and marketing of vehicles in the Community. Cars produced in Italy, without the Community’s harmonised standards under the directive would be banned in Sweden, and if such cars adhered to the Swedish standards, they could not be used within other states in the Community.<sup>373</sup>

The *Shrimp-Turtle Case* exemplifies this. This case “opened the theoretical possibility for the imposition of trade measures, aiming at the protection of the environment outside the imposing country’s jurisdiction to be consistent with WTO rules”.<sup>374</sup>

As the WTO appellate Body decided in favour of the US, this may possibly mean that the US may be justified in seeking to impose on four developing countries, namely, Thailand, Malaysia, Indonesia and Singapore, the need for them to ensure turtle conservation, while fishing for shrimps to be exported, in their territories. Even though the need to observe turtles has been stated by CITES, it is difficult to also envisage a situation where one state can legitimately decide on the environmental policies of others. However, an important point to note though is that at this stage in the world’s development of issues such as sustainable development, the need for worldwide conservation of species was so fundamental and was thus accorded so much importance by the WTO Appellate Body.

Though the similar *Tuna-Dolphin* Case, albeit unadopted, clearly reiterated the view that one state cannot resort to creative unilateralism, stipulating what environmental ensures an exporting state must adopt in order to successfully export goods, the *Shrimp-Turtle* obviously seems to hold a contrary view. How does one distinguish between the two scenarios then? On the surface, the two cases are factually similar, to a very large extent. However, the rulings differ substantially. Perhaps, one explanation could be that by the time the *Shrimp-Turtle* Case came up, the WTO and its Appellate Body were in full existence, promoting sustainable development as a vital tool for the effective realisation of free trade. In contrast to this, *Tuna-Dolphin* arose at a time when free trade priorities were dominating the international agenda. For developing countries that are not adequately equipped to make their goods more environmentally friendly, these are some of their genuinely daunting concerns.

Indeed, where there is a lack of clearly stipulated international guidelines by countries in the form of the adoption of an international convention, or clearly acceptable GATT/WTO Article XX –compliant national policies, which relate to the environmental or health protection of the importing country, the issue of protectionism arises and negatively impacts on market accessibility. For instance, the existence of an international Convention above in the *Shrimp-Turtle* Case may perhaps establish the point that national measures were being implemented in furtherance of the objectives of a prior established convention, for environmental purposes. On the other hand, where such a prior international agreement has not been concluded, protectionism may be prevalent. A hypothetical case of Ghana's unfortunate mining waste tragedy is a case in point. Two years ago, mining waste from Ghana's Tarkwa Mining Company and manufacturing processes in Tarkwa, caused significant amounts of pollution to ecological life in the neighbouring town of Abekwasi.<sup>375</sup> Thankfully, these problems were rectified with clean up remedies. However, the point here is that if the quality of such gold produced was environmentally sound, but upon being exported to another country, was rejected because of the environmental perils which such production had inflicted upon the ecological life of Abekwasi back at home, there might be a problem of disguised protectionism in this sense. The only possible advantage here might mean that countries would be mindful of adhering to environmental considerations in their production processes.

However, under national sovereignty, developing countries need clear guidelines on this issue and not have their goods rejected for some far-fetched environmental reason or other. The solution is really to have a prior international environmental convention or a national convention which conforms to WTO standards, as mentioned already. On the other hand, since creative unilateralism and extraterritoriality may be permissible through invoking the doctrine of opposability, this, for present purposes may override sovereignty and the need for the avoidance of extraterritorialism. The reason here may be for the protection of the ecological base and human health from, harmful environmental disasters which occur from toxic waste mismanagement in trade. Though this may seem to be to the detriment of developing countries as developed countries may use it as an escape route to further marginalise developing countries in trade, and toxic waste trade, from a certain perspective, this might also work to the benefit of developing countries. The following discussions are cases in point.

Under toxic waste trade, the question of liability and product processing methods must also not be lost sight of. These must be stipulated by the three case study countries and reflected in their law/policy, according to the standards which they deem most beneficial to their goals of environmental protection. The issue of carefully evaluating what substances are in question is of paramount importance. There have been cases where poisonous substances such as arsenic have been disguisedly labelled as chemicals for research purposes, paint, and fertilisers and so on. This was exemplified in the 1994, when purported imports of plastic granules and plastic waste imports from Italy to Ghana were actually highly toxic waste containing arsenic compounds and cadmium compounds.<sup>376</sup>

Furthermore, in 2000, South Africa's DEAT diligently discovered that proposed shipments of pargothite from Australia to South Africa for research purposes at the South-African Mintek company, were actually chemicals containing lead and arsenic, both very deadly chemicals and substances.<sup>377</sup> It is thus extremely important for any national law on toxic waste to clearly identify the need for environmental assessments of potential shipments, very specified categorisations of environmentally harmful goods and scientific evaluations explaining why they are rejected, in contrast to far-fetched processes on why certain chemicals are rejected. As far as toxic waste is concerned, ecolabelling and environmental labelling are also an important tool for the realisation of

these objectives, lest the situation of Ghana's Kennedy Round 2 scenario results. In this situation, toxic waste was imported into Ghana from China and Japan, without any indications on what these wastes are. The problem here is that the labelling on these products was in Chinese, with no indications of official translations, and so on.<sup>378</sup> Under national sovereignty, these three case study countries could advisably adopt these ecolabelling measures into their trading schemes, and even if there are no prior international conventions authorising the rejection of a particular form of hazardous wastes, once it can be proved on a scientific basis that such products are harmful, then these three case study countries may be legitimately entitled to reject these substances.<sup>379</sup>

Under such circumstances, the three case study countries and others within Africa can also reject substances when it comes to toxic waste trade, even if these substances are regulated and not to be banned under the Basel, Bamako, Rotterdam and Stockholm Conventions, using the precautionary principle and also, that of creative unilateralism, indicated above.<sup>380</sup> The basis for this would be the priority attached to environmental concerns and sustainable development amongst other international norms, scientific evidence or the great probability of such harm. Through being able to reject such substances which are not listed as banned in Basel, environmental protection is sought. On the other hand, the reliance on scientific evidence or the probability thereof, also ensures the avoidance of protectionism in this regard.

To this end, the solution might be to urgently commission a study, where the WTO and UNCTAD in collaboration with UNEP, the CITES secretariat and other environmental organisations come up with a study on the exact situations where such extraterritorial environmental measures are permissible, in what species, which ones are threatened, which ones are not, and so on. This owes to the current discrepancies in the existing law, as some countries may still be bound to take advantage of this situation to impose their clear standards. This would also ensure more uniformity within the application of such rules.

### **3.6 Conclusion**

The requirement that potentially dangerous goods ought not to be sent to another's territory has legal backing in customary international law, dates back to many decades and could in one way or the other be applicable to the three case study countries. The

three case study countries are entitled to choose any group of substances which they intend trading in, under the principle of national sovereignty. However, it may also be necessary for them to be mindful of not utilising their territories in a way so as not to cause harm to the territories of neighbouring countries, in conformity with the *Trail Smelter Arbitration Case*, for example. States must also co-operate with other states for the adoption of sound legal environmental regimes governing toxic waste trade, which is a transboundary issue and therefore necessitates a multilateral approach. Multilateralism is a useful tool in the adoption of relevant soft law principles and international environmental conventions. It is important to note that liability of offenders of toxic waste trade laws under these international legal regimes, though it could be improved upon, is stricter than in customary international law, which is comparatively insufficient in this regard. In this regard, instead of the Basel Secretariat simply being an observer at the WTO dispute resolution sessions involving illegal toxic waste trade, Basel could be more empowered in resolving toxic waste trade offences. Through the incorporation of a dispute settlement body to resolve inter-state disputes in toxic waste trade as part of the UNEP legal regime, Basel could have more authority here.

Contrary to certain opinions which claim that the emerging international environmental soft law norms are mere aspirations and have no effect in reality, these norms have played an important role in the development of international environmental law, as far as toxic waste trade regulation is concerned. For example, the Basel, Bamako, Rotterdam and Stockholm Conventions reinforce the prior informed consent procedure as well as the preventive and precautionary approaches in toxic waste management and trading issues. Therefore, the degree to which they are prioritised in national law and the treaties of African Regional Mechanisms, is very essential.

Against this background, the various municipal laws of these countries should reflect the emerging environmental law principles. For instance, through greener and cleaner production methods, the preventive principle is enforced.

Similar to South Africa's NEMA and parts of its constitution, the environmental policy of Côte d'Ivoire recognises this and the precautionary principles, as well as that of a human right to a decent environment. However, they must be included in the specific model law as well, with due regard to general environmental policy. It is also advocated

that the *locus standi* principle, for instance, be added as amendment to the law of Côte d'Ivoire on toxic waste and that of Ghana when it is in force. In South Africa where the *locus standi* is already in existence in its Constitution within the general environmental context, the municipal law on toxic waste could also indicate that pursuant to this clause, this principle also be extended to toxic waste issues in particular. Additionally, the class action principle must also be available, so as to facilitate the enhancement of environmental rights and environmental justice, as these relate to toxic waste trade, for the purposes of this thesis.

These, together with other soft law principles, contribute to the predominant soft law principle of sustainable development in contemporary times.

Various proposals have been put forward for a smoother functioning of certain Conventions discussed in this Chapter. For example, the Basel Convention, through its Regional Centres, has successfully established capacity building programmes for developing countries all over the globe, which include the three case study countries. The BCRCs operate in the three case study countries and other continents, to provide capacity building. So far, a lot of successes can be attributed to it, as it has provided many series of training in hazardous waste management for officials from developing countries, which is useful for increasing the level of expertise. Such knowledge is lacking in the three case study countries, as far as the regulation of toxic waste imports and exports is concerned, as discussed in Chapter 5.3. However, officials at the secretariat need to devise meaningful ways of helping countries to disseminate success stories of lessons learned from these programmes, to other stakeholders involved in toxic waste trade within the municipal and regional set-up. These ways include documenting such lessons learned, making them available on the website and media, and also presenting them to other workshops of the BCRC and WTO Committee on Trade and Environment.

Though the Basel Convention originally aimed at regulating the trade in these substances as opposed to the Bamako and Lomé Conventions which banned trading in these substances altogether, Basel's Third Ban Amendment, is now geared towards the same direction. South Africa might want to accede to Bamako with due regard to a deeper commitment of this continent to African solidarity. In addition to the facilitation of intra-African trade and derivation of economic advantages of this accession thereby, this



could enable Africa to work together on monitoring illicit imports of toxic waste under the Bamako Convention.

The approach of the three case study countries to these Conventions has also been discussed. It seems that with the Third Ban Amendment of the Basel Convention, its objectives of banning the trading of hazardous waste altogether then becomes similar to those of Bamako. However, there are currently 49 ratifications out of the required number of 62 ratifications. In the absence of the requisite 62 ratifications, Basel could be seen to still regulate and not ban trading in these substances altogether. It must be stated however, that, under national sovereignty, these three case study countries and other developing ones are freely entitled to decide on whether or not to trade in certain hazardous substances from the first world under the Basel Convention.

Additionally, through the Bamako Convention, the national Dumpwatch of certain West and Central African countries have, for example, been established. The workings of the Dumpwatch have to be officially documented, with highlights of success stories and remaining obstacles. These must also be readily available on the website and through the media. Individuals within the national setting could have easy access to this mechanisms, for reporting illicit incidents. Furthermore, the Dumpwatch must be heard at the WTO's Committee on Trade and Environment, when there are concerns, and also, with regard to the former's work being carried out. This could be effectively accomplished through the Inter-Agency Committees, which, as indicated in Chapter 6, will be the national focal point in these matters at various municipal levels. A COP also still needs to be convened to assess and document the successes and challenges of this Convention. The workings of this convention should also be easily accessible on the internet, for example. A legal mechanism for holding future offenders liable needs to be established for a better functioning. These could complement the proposed model laws.

Rotterdam and Stockholm are timely initiatives which could help the three case study countries import sound chemicals for their agricultural processes. Liability regimes must be established, through the adoption of a multilateral approach on the part of the world's nations. Though it may be a bit too early to evaluate the accomplishments or failures of these mechanisms, these Conventions could be useful tools which could help the three

case study countries in the efficient regulation of toxic waste trade. Their principles must therefore reflect in the three case study countries who are parties to these Conventions.

Soft law instruments such as the WSSD and Agenda 21 Declarations, as well as certain UN institutions such as UNCTAD and UNCSD are useful tools, even if not legally binding in comparison to the aforementioned Conventions, in helping the three case study countries to develop sound environmental measures for trading in toxic waste.

The NEPAD and other African regional mechanisms also need to emulate the example set by other regional mechanisms such as the NAFTA, by establishing a special body to implement trade and environmental concerns, specifically, toxic waste trade. This body could also set up a system of indicators to monitor member states' compliance. Further recommendations for these mechanisms include the need for a dispute settlement body, under NEPAD, to resolve all intra-African disputes in trade and environmental issues, and for the purposes of this thesis, toxic waste trade disputes and offences. Advisably, in the absence of adequate funding, low-paid consultancies and even free internships could be initially started in toxic waste issues, a field which is to a large extent, not accorded much priority in these bodies.

Furthermore, in many cases, there is the likelihood that the soft law principles, conventions, environmental considerations and some of the abovementioned laws may positively enhance the free flow of global trade. The inclusion of the principles of sustainability and the preventive and precautionary principles of foresight is vitally important and must be emphasised in every law regulating toxic waste trade. In marginal instances where this cannot be accomplished, there are obstacles. Through the environmental funding and incentives discussed in this chapter, environmental considerations then become a prevalent feature of every African company or manufacturing process, big, small or medium. The result is that problems of disguised protectionism, extraterritoriality and national sovereignty as well as marginalisation from the first world are effectively eradicated. Unfettered, undisrupted and fair green trade in toxic waste may then abound in these circumstances.

However, these environmental principles and membership to multilateral environmental conventions could also be used as positive instruments which will enhance the flow of

trade in toxic waste, so that in this area of activity, the trickling down effects of free trade, as discussed in Chapter 2, will be felt by the three case study countries. In light of these viewpoints, it is suggested that given the fact that sustainable trade in toxic waste can generate income and employment, *inter-alia*, the best thing may be for certain substances to be imported and others to be rejected, while stipulating the clear environmental considerations which will be prioritised in importing these substances. Even though incorporating environmental concerns such as the precautionary and preventive principles in such trade could mean that developed countries violate the extraterritoriality principle and stipulate what category of goods which developing countries must import and export, this can also work to the advantage of developing countries, including those subject to the case studies of this thesis.

For instance, it is advocated that their respective municipal laws on toxic waste also incorporate the requirement of ecolabelling systems, as part of the requirements in the notification, packaging and information procedures, and that such ecolabelling schemes be unambiguously highlighted in the official language of the nation of import. Through the inclusion of such principles into trading activities, a country such as Ghana could then refrain from importing obsolete pesticides from China and Japan, when these substances are labelled in Chinese and cannot be comprehended, only to be discovered later that these substances are highly toxic. Even when a substance has not been deemed to be highly toxic and prohibited under the Basel or Rotterdam Convention, the three case study countries, may under the precautionary principle, ban the trading in such forms of waste.

Another important point is to find a way of definitely funding developing countries' industries who find it difficult to adhere to environmental considerations in global trade. This raises the question of the trade and environment debate, and the implications of environmental law on international trade. In the present circumstances, it is admittedly difficult for them to make any kind of progress in this regard. However, for these countries to meet the requisite environmental standards, improve the quality of goods and thereby acquire all manner of sophisticated technologies, this may not be so simple a simple task.

Though extraterritoriality and unilateralism may be undesirable, they could be permissible in international law, with due regard to certain emerging doctrines. These include the doctrine of opposability in international law. On the issue of the three case study countries' effective regulation of toxic waste trade, this doctrine would also be relevant in light of scientific certainty. Accordingly, the three case study countries can reject substances when it comes to toxic waste trade, even if these substances are regulated and not to be banned under the Basel, Rotterdam and Stockholm Conventions, for example. The basis for this would be the priority attached to environmental concerns such as the sustainable development and precautionary principles amongst other international norms, from scientific evidence, or that the probability of resultant environmental dilemmas would be high. Through being able to reject such substances which are not listed as banned in Basel, Rotterdam and Stockholm, environmental protection is sought. On the other hand, the reliance on scientific evidence or the probability thereof also ensures the avoidance of protectionism in this regard.

Discussions up to this point have focused on international legal approaches to protecting the environment, with specific references to the greening of hazardous waste trade. In this regard, analytical perspectives have also been provided on the role of multilateralism, increasingly important soft law principles in this area of law, the workings of relevant legally binding international treaties such as the Basel, Bamako, Rotterdam and Stockholm Conventions, soft law instruments such as the UNCED (1992) and WSSD (2002) Declarations, UN institutions and African Regional Mechanisms, with particular emphasis on proposals for regulatory reform. The approach adopted by the three case study countries to all these mechanisms have been reviewed in this light, followed by a close examination of the implications of these environmental instruments for the toxic waste trading positions of the three case study countries in the global economic order.

The main aim of this analysis is to explore the best pragmatic means through which the membership of the three case study countries to these international instruments, their participation in UN projects on hazardous waste and their membership to African Regional Mechanisms could enable them to implement a model law which generally enables them to maximise the benefits of free trade in toxic waste, while at the same time, arriving at sustainable development. This assessment within a broader context, then ties in squarely with discussions in the next chapter which surveys the development of

the somewhat pre-existing and inherent link between the two distinctive branches of international trade and international environmental law over the decades, how they have become more pronounced until very recent times when these two areas have gradually intersected and resulted in the trade and environment debate. From these discussions, some important lessons could be extracted and incorporated into the proposed model municipal law regulating toxic waste trade.

<sup>1</sup> UNEP, Division of Environmental Policy Implementation, "Compliance and Enforcement", Development of Guidelines on National Enforcement of MEAs and on Compliance with MEAs, available at <http://www.unep.org/depi/compliance-and-enforcement>. It is noteworthy that though this citation is on international environmental law and environmental protection in generic terms, for the purposes of this thesis, this translates to international environmental law as it relates to the specific problem of regulating toxic waste trade.

<sup>2</sup> See Chapter 1.1 on Background and Overview, Under Introduction and Chapter 5.4 for certain examples of illegal trading practices, especially at Chapter 5.4.17 under secondary references involving other developing countries and Chapters 3.4.1(a) on historical development of the Basel Convention, Chapter 3.4.3 (a) on the historical overview of the Rotterdam Convention and Chapter 3.4.2 (a) on background to the creation of the Bamako Convention.

<sup>3</sup> Sands, P *Principles of International Environmental Law* Volume II Manchester University Press: Manchester and New York (1995), Chapter 4, on Soft Law Principles and International Law Making and Regulation.

<sup>4</sup> Other sources of environmental law are international law, which is in turn composed of international environmental conventions and related instruments, common law principles such as *sic utere tuo ut alienum non laedas*, statute law, the constitution of nations' countries and in relevant cases, African customary law, see for example, Glazewski, J *Environmental Law in South Africa* Butterworths (2000), at 36, when discussing sources of international environmental law, at 35-36. See also, Ball, S and Bell, S *Environmental Law* Blackstone Press Ltd. 4<sup>th</sup> ed (1991), Chapter 2 on sources of environmental law, esp. at 28-29 on informal sources of law.

<sup>5</sup> See points on multilateralism under Chapter 1.1.6.

<sup>6</sup> See Chapters 2.3.2 (a), 3.1.1(a), 3.1.1(b), 3.2.2 and 3.2.3 for details of these discussions.

<sup>7</sup> See Chapters 3.4.12 and 3.4.13 in this regard.

<sup>8</sup> See Kiss, A and Shelton, D *International Environmental Law* Transnational Publishers, Inc. (1991), at 134, 218-231 for the case of the Sandoz spill, and 1-2, 44, 68, 106, 134, 136, 221, 222, 228.

<sup>9</sup> See also, Sands, P "Chernobyl: Law and Communication" in Hunter, D et al *International Environmental Law and Policy* New York Foundation Press (1998), at 915-917, where he *inter-alia*, discusses the significant contamination in milk producing cattle, the atmosphere, soil and water as well as loss of jobs in the agricultural sector in Germany. He also discusses increases in radioactivity levels in Sweden, Denmark, Finland and Poland. These trends resulted from the Chernobyl disaster which occurred on Russian territory.

<sup>10</sup> Principle 22; See Thant, U United Nations Under-Secretary-General, Stockholm Conference on Human Environment, 1972, reproduced in Justice AA Desai, *Environmental Jurisprudence*, Vikas Publishing House, PVT Ltd (1998), at 55.

<sup>11</sup> Principle 13.

<sup>12</sup> See for example, Principle 32 of the WSSD Johannesburg Declaration on Sustainable Development, 2002, under "Multilateralism is the Future". This principle, *inter-alia*, reaffirms the commitment of the international community to the principles and purposes of the UN Charter and International Law as well as the strengthening of multilateralism.

<sup>13</sup> See Chapter 3.2.10 for more details.

<sup>14</sup> See fn. 60 of Chapter 2.

<sup>15</sup> Section 233 of the South African Constitution (Act 108, 1996); Dugard, J *International Law A South African Perspective* Juta & Co, Ltd. (2000), at 25 and Chapter 4.

<sup>16</sup> See Article 40(c) of the Ghanaian Constitution Supra 13, which reiterates the respect of the Ghanaian Government to promoting international law *inter-alia*, in the government's dealings with other nations.

<sup>17</sup> See Articles 85 and 86 of the Constitution de la République de Côte d'Ivoire (2000).

<sup>18</sup> *US v Canada* 1938 and 1941; 33 *AJIL* (1939), 182; and 35 *AJIL* (1941), 684.

<sup>19</sup> 35 *AJIL* (1941), at 684; See also, Glazewski, JI "Regulating Transboundary Movement of Hazardous Waste : International Developments and Implications for South Africa", 1993 26(2) *CILSA*, 234-248, at 238; Glazewski (2000), Supra 16, Chapter 17, especially at 652 on "The Law of Neighbours".

<sup>20</sup> ICJ Reports (1949). See also, the Montréal Rules, that is, ILA Draft Rules on Transboundary Pollution which requires states from preventing transfrontier air pollution to the extent that no substantial injury is caused to others' territories and prohibits states from discharging into the atmosphere, substances which are considered as dangerous to human health, lest this results in transfrontier pollution; Hughes, D, *Environmental Law* 3<sup>rd</sup> ed Butterworths (1992) 2<sup>nd</sup> Edition, at 314-315; Harris, DJ *Cases and Materials on International Law* 5<sup>th</sup> Edition London, Sweet and Maxwell (1998), at 494-499; Glazewski (1993), Ibid; See also, *The Nuclear Test Case, Australia v France*, (1974) ICJ Reps, 253.

<sup>21</sup> See ICJ Reports (1949), Ibid, at 22.

<sup>22</sup> See Principles 21 of the Stockholm and 2 of the Rio Declarations. See also, Article 74 of the UN Charter on the general principle of good neighbourliness.

<sup>23</sup> Byers, M "Abuse of Rights: An Old Principle, A New Age" (2002) 47 *Mc Gill L.J.* 389, at 389.

<sup>24</sup> PCIJ Report Series A No. 7 (1926), at 30; Mc Nair, AD and Lauterpacht, H, *Annual Digest of International Law Cases*, Years 1925-1926, at 81-83; 65-67 and 207; Glazewski (1993), Supra 19 at 238.

<sup>25</sup> Ibid. See also, the case of *Certain German Interests in Polish Upper Silesia*, PCIJ (Ser. A) No. 7, at 30.

<sup>26</sup> See Chapter 3.1.1(a).

<sup>27</sup> See Supra 8.

<sup>28</sup> See Supra 9.

<sup>29</sup> See Chapter 5.4.2 for discussions on the *Thor Chemicals* Case. On fns. 27-29, see also, Chapter 2.7.2 (b) for further analytical insights into these cases.

<sup>30</sup> Emphasis mine.

<sup>31</sup> See Chapter 6.

<sup>32</sup> See for example, fns. 60-61 infra, and fns. 76-80 infra.

<sup>33</sup> See for example, fns. 64 infra and fns. 81 to 82 infra.

<sup>34</sup> Glazewski (1993), Supra 23 at 238-239.

<sup>35</sup> See UNEP Decision on Co-operation with the WTO, UNEP Document UNEP/CHW.6/L.1, December 2002. See also fn. 201 infra, in relation to the legal workings of Basel to hold toxic waste offenders liable.

<sup>36</sup> Glazewski (2000), Supra 34 at 14.

<sup>37</sup> World Commission on Environment and Development Our Common Future (the Brundtland Report) 1987 at 43, cited in Glazewski (2000), Ibid, at 14-15.

<sup>38</sup> Sands (1995), Supra 3, at 198-208; See also, Bates, GM *Environmental Law in Australia* Butterworths (1983); In *the Nuclear Tests case of New Zealand v. France*, four of such principles, the intertemporal principle, the principle of intergenerational equity, the precautionary principle and the principle of environmental impact assessment, were highlighted as some of the laws which are gaining importance in terms of how best they seek to protect the environment.

<sup>39</sup> Sands (1995), Ibid, at 199.

<sup>40</sup> See for example, the main aims and thematic focus of the WSSD in 2002, Johannesburg, discussed earlier in this sub-chapter; The UN agency such as FAO, while implementing its decisions and projects has as its guiding principle, Sustainable Agriculture and Rural Development or SARD, which basically emphasises the continued satisfaction of human needs for present and future generations during the management and conservation of the natural resource base, and the orientation of technological and institutional change.

<sup>41</sup> See Muldoon, P et al *The Environmental Bill of Rights: A Practical Guide* Edmond Montgomery Publications Ltd. (1995), at 222.

<sup>42</sup> For references on much more recent conventions, see for example, the Zambezi ACTION plan Agreement (1987) and the UN Framework Convention for Climate Change (1987).

<sup>43</sup> (1998) 37 *ILM* 162, cited in Glazewski (2000), Supra 37, at 15; See also, A Shared Responsibility: Global Policy Coherence for Our Global Age," WTO publication on German Businessmen Meeting of 9<sup>th</sup> December, in paragraph 2 where Renato Ruggiero then Director-General of WTO stressed that the main subject of the conference, "Sustainable Development", represents one of the most powerful contemporary ideas; see also British Council seminar on environmental responsibility in world trade, paragraph 4 of introductory chapter, p 1, where it is stated that sustainable development does not only entail environmental protection. Thus, it continues, the starting point of the conference, "environmental responsibility", will be set within a wider context of sustainable development: eliminating poverty,

improving economic efficiency and regenerating the ecological base. See also, Bates, GM *Environmental Law in Australia* Butterworths (1983), at 24-32, on sustainable development, within the Australian context and from international perspectives; Hughes, D, *Environmental Law* 3<sup>rd</sup> ed Butterworths (1992) 2<sup>nd</sup> Edition, at 14-15, where he succinctly discusses the elements of sustainable development, citing Pearce et al, *Blueprint for a Green Economy* (1989) Earthscan Publications Limited. On sustainable development generally, see International Institute for Environment and Development, *Words into Action, For the UN World Summit on Sustainable Development*, 26<sup>th</sup> August to 4<sup>th</sup> September 2002. On this principle and other general international environmental law principles such as the common but differentiated responsibility, see Sands, P "Environmental Protection in the Twenty First Century: Sustainable Development and International Law", produced in Vig, NJ and Axelrod, RS *The Global Environment, Institutions, Law and Policy*, (1999) Earthscan Publishers, 116-156, especially at 128-129.

<sup>44</sup> Cited in Glazewski (2000), *Ibid*, at 15 to 16; See also Ss 2(3), 1(1) (xxix) and 2(4) (a) (i)-(viii) of NEMA; White Paper at 25. For reflection of sustainable development in environmental management principles under NEMA, see S2(4)(b)-(f) of this Act.

<sup>45</sup> Discussions with official from MEST, Accra, 2003 reaffirm this commitment. However, a close look at municipal environmental law such as the EPA Act (Act 490, 1994) and the Pesticides Control and Management Act (Act 528, 1996) do not specifically spell this out.

<sup>46</sup> Discussions with official from the Ministère de l'Environnement, Abidjan, 2003. Relevant Ivorian environmental legislation such as *Loi No. 88-651* on the Prohibition of Toxic Waste (1988) and *Loi No. 96-766* (1996), discussed in Chapters 5.6.4 and 5.6.5 respectively, do not specify the need for sustainable development.

<sup>47</sup> See Chapter 3.5.1(a) under discussions relating to the technical assistance offered by the Basel and Rotterdam Conventions to three case study countries, including adhering to the Basel Guidelines on the environmentally sound management of wastes, in their implementation of waste recycling projects.

<sup>48</sup> See recommendations for regional mechanisms below, in Chapters 3.4.2, 3.4.6-3.4.7; See also, Preamble of model treaty and law, in Chapters 6(A) and 6(B) respectively.

<sup>49</sup> See Annex IV to Chapter 6(B) under model law and Chapter 5.4 on proposed waste recycling projects.

<sup>50</sup> See Preamble of model law in Chapter 6(B) on sustainable development.

<sup>51</sup> Ambassador Robert van Lierop, Permanent Representative of Vanuatu to the UN and Co-Chairman of Working Group 1 of the INC/FCCC, Statement to the Plenary Session of the INC/FCCC, 5<sup>th</sup> February 1991, at 3; reproduced in Sands (1995), *Supra* 38, at 208-209.

<sup>52</sup> Principle 15.

<sup>53</sup> Sands (1995), *Supra* 51, at 208; see also, Glazewski (2000), *Supra* 36, at 19-20 on the precautionary principle; IUCN Commission on Environmental Law, Draft International Covenant on Environment and Development, (Prepared in Co-operation with the International Council of Environmental Law), IUCN, Gland and Cambridge. xxiv+200pp. (1995), International Union for Conservation of Nature and Natural Resources and International Council of Environmental Law, Article 7, with a discussion of the *Trail Smelter Case*, *Supra* 23, in this regard. For relevant case law, see also *Vellore Citizens Welfare Forum vs Union of India and Others*, JT 1996 (7) S.C. 375, on this, preventive and polluter pays principles, discussed below.

<sup>54</sup> Sands (1995), *Ibid*.

<sup>55</sup> Arts. I and V(3)(a).

<sup>56</sup> See also Sands (1995), *Supra* 54, for further referencing. For further references on current trends relating to this principle, see the Second and Third North Sea Conference and their Ministerial Declaration, 1987, 1990 and 1984 respectively, which exhorted ministers of these countries to adopt this approach in protecting the North Sea from possibly damaging effects of the most dangerous substances (London, 25 November 1987; also PARCOM Recommendation 89/1 (1989), supporting the principle of precautionary action); See also, the 1992 Water Courses Convention, the 1992 Biodiversity Convention, the 1990 Bergen Convention, the 1992 Maastricht Treaty, the 1992 Climate Change Convention. See also, the 1990 Bergen Ministerial Declaration which was the first international instrument to establish a link between this principle and sustainable development, by providing that in order to arrive at the latter, the former must be implemented.

<sup>57</sup> While justifying the approach of Greece to these measures and its adoption of the precautionary principle, the ECJ recalled that it "has consistently ruled that where the data available at the present stage of the scientific research do not make it possible to determine with certainty the number of pathogenic micro-organisms above which a food product represents a danger to health, in the absence of harmonisation in this field, it is for the Member states to determine, with due regard to the requirements of the free movement of goods, the level at which they wish to ensure that human life and health are protected", see ECJ, 1993, at 2087, discussed in Neumayer, E "Greening the WTO Agreements: Can the Treaty Establishing the European Community be of Guidance?" *JWT* 35(1) February 2001, 145-166, at 160. In upholding export restrictions by the UK, the ECJ in 1998 ruled thus: "where there is uncertainty as to the existence or extent of risks to human health, the institutions may take protective measures without

having to wait until the reality and seriousness of those risks become fully apparent, ECJ, 1998b, at 2259, reiterating the position in *Enichem*.

<sup>58</sup> In June 2002, Zimbabwe rejected Genetically Modified Organisms produced foods from the US. In August 2002, Zambia took the same stand, despite the fact that 2.4 million people were desperately starving in this country, which signifies the largest famine experienced in Zambia. The reasoning behind these two rejections was that these foods could be potentially dangerous to the hungry population and would not be accepted until scientists proved that these foods were safe for human consumption. According to Dr. Jacques Diouf, (FAO Director-General), the EU Commission has found no evidence that this food could be harmful. Dr. Diouf states that the relevant food safety risk assessment be conducted, with the same principles applied in the first world being applied to the third world. SABC News, Friday, 30<sup>th</sup> August 2002, at 19:00 hours and 20:00 hours. Indeed, it may be reiterated that if African countries in this era of sustainable development and the promotion of environmental principles for successful developmental goals accept such food imports which they are not certain of, the whole sustainable development agenda, and the commitments of governors in these matters are really questionable. They may simply be applying the precautionary principle. This may be justifiable, because the persistence of famine in this region does not also suggest that African governments go contrary to the beautifully written principles they have struggled to adopt and must promote in development and training goals. Hence, on the one hand, the precautionary principle may justify such a rejection. At the same time, these foods may actually pose no harm. To the proposed solution by Dr. Jacques Diouf herein, it must also be added that the outcome of such a risk assessment be made available to all countries and this exercise be carried out in a timely manner without delay (so that if dangerous, safer food be sent to these starved people).

<sup>59</sup> Sands (1995), *Supra* 56, at 209.

<sup>60</sup> Article 4 (10).

<sup>61</sup> Article 4 (2.e); see Kummer, K *International Management of Hazardous Wastes: the Basel Convention and Related Issues*. New York: Clarendon Press (1995), at 56-57.

<sup>62</sup> See Preamble Paragraph 2 of the Rotterdam Convention.

<sup>63</sup> Article 14(3).

<sup>64</sup> Article 3(f); See also, Article 3(g).

<sup>65</sup> On precautionary principle, see also, Trouwborst, *A Evolution and Status of the Precautionary Principle in International Law* Kluwer Law International, The Hague, The Netherlands (2002) *International Environmental Law and Policy Series* (Volume 62), especially at Chapter 3.

<sup>66</sup> Article 5(7); See also, fn. 73 of Chapter 2.

<sup>67</sup> S2(4)(a)(vii).

<sup>68</sup> See discussions in 3.5.2(b) under proposal for three case study countries to include hazardous substances not included in Basel, Bamako, Rotterdam or Stockholm Conventions, using the precautionary principle. See also, Chapter 3.4.3(b), concerning the extension of controlled chemicals under Rotterdam extended to cover substances which were not regulated under this Convention, at its inception.

<sup>69</sup> Kummer (1995) *Supra* 61, at 34-36; See also, IUCN Commission on Environmental Law (1995), *Supra* 53, Article 6.

<sup>70</sup> See also, the reflection of this principle in the *Lac Lanoux Arbitration* (1957) 24 ILR 101; *the Nuclear Tests Case*, *Supra* 15; *Certain Phosphate Lands in Nauru, Nauru v Australia*, ICJ Rep. 1992, 240, 244 and *Hungary's Original Application to the ICJ, concerning the Gabčíkovo v Nagymaros Project* (1997) ICJ Reports 7.

<sup>71</sup> Chapter 2(A).

<sup>72</sup> Chapters 20 and 21.

<sup>73</sup> Chapter 20.

<sup>74</sup> UNEP Press Release 2003/02, "Switch to Unleaded Petrol in Sight for Africa", based on UNEP Governing Council Meeting, 3-7 February 2003, Nairobi, Kenya, which also discussed UNEP Dakar's Declaration (March 2002) on the phase-out of leaded gasoline, as a yardstick to emulate in the petrol initiative.

<sup>75</sup> For more examples of a reflection of this principle in international treaties, see the preamble clause of the 1954 Oil Pollution Prevention Convention which seeks to prevent sea pollution, by oil and Article 5(1) of the 1986 Noumea Convention on the avoidance of all forms of pollution.

<sup>76</sup> Article 10(2)(c).

<sup>77</sup> Conference Decisions I/97 (1992) and II/25 (1994).

<sup>78</sup> Articles 4(2b) and 2(d).

<sup>79</sup> Article 4(9); See Kummer (1995), *Supra* 69, at 55-56.

<sup>80</sup> On information concerning OECD and non-OECD countries, see fn. 18 4 of introduction.

<sup>81</sup> Article 4(2).



<sup>82</sup> Article 4(3) (h).

<sup>83</sup> Article 4(3)(g)). See also, Article 4(f) to 4(m)) and Article 4(3) generally, for other precautionary measures to be adopted by Bamako member states.

<sup>84</sup> S2(4)(a)(ii). See Glazewski (2000), Supra 48, at 20.

<sup>85</sup> S2(4)(a)(iv).

<sup>86</sup> See National Waste Summit Declaration, Pietersburg, South Africa (2000), paragraphs 1 to 28, for a full discussion of these steps, which conform to the preventive principle, in managing toxic and other waste in South Africa.

<sup>87</sup> See the Republic of Ghana, Environmental Assessment Regulations (1999), Schedule 1, Regulation 1(1), Paragraph 27 on waste materials, Paragraph 6 on crude oil and natural gas, paragraph 20 on chemicals and chemical products and Schedule 2, Regulation 3, paragraph 8 on industrial waste such as chemicals, petrochemicals, non-ferrous smelting and cement.

<sup>88</sup> Discussions with official from Le Ministère de l'Environnement, Abidjan, 2002-2003. On legislative stipulations governing toxic waste, see *Loi No. 88-651* and Article 26 of *Loi 96-766*, Supra 46.

<sup>89</sup> Principle 16; See also, Chapter 17 of Agenda 21; The 1985 ASEAN Convention (Article 10(d)), the 1991 Alps Convention (Article (2(1))) and the 1992 Baltic Sea Convention (Article 3(4)) all require their respective member parties to apply this principle. IUCN Commission on Environmental Law (1995), Supra 69, Article 49.

<sup>90</sup> See Supra 46.

<sup>91</sup> See fn. 252 infra.

<sup>92</sup> Glazewski (2000), Supra 44, 20-22; Sands (1995), Supra 56; Hughes (1992), Supra 25, at 90-91; at 276, he *inter alia*, provides that "The polluter pays principle would apply to ensure that disposal charges are adequate to meet initial, operating, closing and aftercare costs. Strict civil liabilities would be imposed on site operators for 'impairment of environment' caused by the landfilled waste, and corrective measures to redress deleterious effects would be required of operators, the default powers entrusted to regulators in cases of non-compliance. Financial guarantees/bonds would be required from operators to back up their obligations in this respect". See also, the IUCN Commission on Environmental Law (1995), Ibid, Article 49, on the polluter pays principle.

<sup>93</sup> S2(4)(p). See Glazewski (2000), Ibid, on the South African mining policy, at 21. This principle, together with the precautionary principle and that of sustainable development, have now been incorporated into the municipal environmental systems of developing countries such as India, as seen in the case of *Vellore Citizens Welfare Forum vs Union of India and Others*, JT 1996 (7) S.C. 375 (Desai, p xvi). On polluter pays, see for example, the *Syndicat National des Fabricants Raffineurs d'Huile de Graissage and Others v. Groupement d'Intérêt Economique 'Inter-Huiles' and Others*, ECJ Case 172/82, Court of Justice of the European Communities, Luxembourg, 10<sup>th</sup> March 1983.

<sup>94</sup> Sands (1995), Supra 92, at 221.

<sup>95</sup> *Sierra Legal Defence Fund Media Release* "Supreme Test for Environmental Class Actions".

<sup>96</sup> Section 24. For examples of how this principle works within the municipal setting, see, Canada, in its 1988 Canadian Environmental Protection Agency (Hereinafter CEPA), (a) grants two persons the right to request an investigation of suspected offences under the Act; (b) consists of provisions which enhance citizen access to the federal government's standard-setting process for "toxic substances", and (c) other matters such as citizens' ability to request that substances be added to the Priority Substances List, a list of substances that are to undergo an in-depth assessment of their toxicity, See Section 12 (4), of Muldron et al, Supra 41, at 21. India and Namibia also incorporate this principle into their constitutions.

<sup>97</sup> See Preamble Paragraph 5 of Bamako Convention. On *locus standi*, see also, Ball and Bell (1991) Supra 4, at 34-36 and Glazewski (2000) Supra 92, at 17.

<sup>98</sup> Research findings from MEST, Ghana, from 2002 to 2003, confirm this. As at 2004, this was still the case.

<sup>99</sup> See Ivorian Laws 88-651 and *Loi 96-766*, Supra 90.

<sup>100</sup> Principle 19.

<sup>101</sup> Article 6.

<sup>102</sup> Article 6.

<sup>103</sup> Rotterdam, 11 September 1998, Rotterdam Convention on Prior Informed Consent, Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, *News and Highlights, Rotterdam Convention on Harmful Chemicals Pesticides Adopted and Signed*.

<sup>104</sup> Rotterdam Convention (1998), Text and Annexes, Annex on List of Controlled Chemicals.

<sup>105</sup> See News Highlights FAO of the UN, *Rotterdam Convention Gains Momentum at Rome Convention*, 27 July 1999, for discussions on adding binacrophyl and toxaphene, as well as the poisonous effects of these chemicals. See also, Stibravy, WJ, Permanent Representative of the International Chamber of Commerce to

the UN, *What's New, UN Report, UN Panel Calls for Controls on Asbestos, Pesticides and Lead Additives*, 12 March 2003, for discussions on extending the list of controlled chemicals to include the substances discussed in this portion of the thesis.

<sup>106</sup> See Chapter 6 under discussions for enhanced workings of Inter-Agency Scheme and Chapter 5.3.2 on recommendations for improvement in workings of this scheme in Ghana and La Côte d'Ivoire.

<sup>107</sup> Tha et al "Ecolabelling and International Trade", UNCTAD Discussion Papers No. 70 (October 1993), 1, produced in Appleton, *AE Ecolabelling Programmes: International Trade Law Implications* International Environmental Law and Policy Series Kluwer Law International (1997), at 1.

<sup>108</sup> Definition provided by Organisation for Economic Co-operation and Development (Hereinafter, OECD) in 1991, reproduced in Appleton (1997), *Ibid.* In Appleton, further details about ecolabelling and environmental labelling are provided. For example, at 5, he provides that eco-labels, alternatively termed as life-cycle labels, entails an examination of the environmental implications associated with all phases of a product's life, comprising its production (including raw material use), distribution, use and disposal. At page 6, he provides that this practice has often been termed as the cradle-to-grave analysis. Ecolabelling schemes are currently employed by Poland, Austria and Japan, and are being developed in Brazil, Chile, Columbia, Indonesia, Poland and Thailand. For examples of how they work in practice, the Blue Angel Environment Label Umweltzeichen of Germany could be cited. See also, British Council, "Environmental Responsibility in World Trade", <http://www.britcoun.org/seminars/erwt/14.htm>, (1998), at 1.

<sup>109</sup> See Annex 3(A) under findings for Ghana for questions 3 and 4, concerning hazardous waste importation from other countries; See also, Chapter 5.4.12.

<sup>110</sup> S.5.

<sup>111</sup> See principle 1 of Draft. Information on this was obtained from <http://www.ciel.org/Publications/olp3iii.html>, Centre for International Environmental Law, III, "Human Rights, Environment and Economic Development: Existing and Emerging Standards in International Law and Global Society.

<sup>112</sup> Article 24. On this principle, see also, Glazewski (2000), *Supra* 97 at 17; IUCN Commission on Environmental Law (1995), *Supra* 97, Article 4.

<sup>113</sup> Section 24.

<sup>114</sup> See Article 19 of Ivorian Constitution, *Supra* 22 and Article 33 of *Loi* 96-766 *Supra* 99.

<sup>115</sup> Article 28 of Ivorian Constitution, *Ibid.*

<sup>116</sup> US-EPA, Environmental Justice, available at <http://www.epa.gov/compliance/environmentaljustice>, last updated on Thursday, October 30<sup>th</sup>, 2003.

<sup>117</sup> Glazewski (2000), *Supra* 112, at 18. See also, IUCN Commission on Environmental Law (1995), *Supra* 112, Article 5.

<sup>118</sup> Section 24 (b) of the 1996 South African Constitution.

<sup>119</sup> Discussions with official in Ghana's MEST in 2003 and 2004 confirm that this requirement is yet to be provided for.

<sup>120</sup> From similar information obtained from officials from the Ivorian Environmental Ministry in 2003, the same holds true for this country. Emphasis must be put on the need to preserve the environment and sustainable resources, not *just for this generation, but also, future generations as well*, as indicated by Madame Zahra Nuhru, UN Resident Co-ordinator and UNDP Resident Representative, Malawi, on SABC News, 5<sup>th</sup> May 2003, at 01:00 hours, GMT. Therefore, the proposal for intergenerational equity and sustainable development to be reflected in trade and environmental legislation, as well as a 'specific' model law regulating toxic waste trade is greatly recommended.

<sup>121</sup> Glazewski (2000), *Supra* 117, at 18-19.

<sup>122</sup> Glazewski, (2000), *Ibid.*

<sup>123</sup> Glazewski (2000), *Ibid.*, at 19, with further referencing on case law.

<sup>124</sup> Section 2 (4) (o).

<sup>125</sup> A review of Ghanaian legislation in Chapter 5.5.9 and the Ghanaian Constitution *Supra* 13, confirms that this principle is lacking.

<sup>126</sup> Information obtained from discussions with officials, *Supra* 46. An assessment of relevant Ivorian environmental law such as those discussed in Chapter 5.6.4 and 5.6.5 confirm this.

<sup>127</sup> Principle 7.

<sup>128</sup> See General System of Preferences under fn. 120 of Chapter 2; See also, IUCN Commission on Environmental Law (1995), *Supra* 117, Article 3 and also, fn. 24.

<sup>129</sup> See Article 16.

<sup>130</sup> Statement by Mr. Niek Van der Graaf, Chief of Plant Protection Services, FAO, reproduced in News Highlights FAO of the UN, 27 July 1999, *Supra* 100.

<sup>131</sup> See fn. 164 of Introduction, Chapter 1.

<sup>132</sup> See for example, Chapter 3.4.2(f), under reasons for inability of Bamako Secretariat to convene envisaged COPs.

- <sup>133</sup> See Chapter 2.7.1(b) and Chapter 3.4.11 *Infra* on the African Stockpiles Programme.
- <sup>134</sup> See Glazewski (2000), *Supra* 123, for discussions on this principle.
- <sup>135</sup> Marbury, HJ "Hazardous Waste Exportation: The Global Manifestation of Environmental Racism" (March 1995) *Vanderbilt JTL*, Volume 28 No. 2, 251-294, at 255, cited in Chapter 5.1 *infra*, under overview to toxic waste trade patterns in the three case study countries.
- <sup>136</sup> See discussions on Seveso, Sandoz and Chernobyl incidents, discussed in Chapter 1.1.3, in Introduction.
- <sup>137</sup> *Supra* 19.
- <sup>138</sup> Paragraph 24 of preamble.
- <sup>139</sup> Article 4(6).
- <sup>140</sup> See Glazewski (2000), *Supra* 134, at 55.
- <sup>141</sup> See fn. 25 of Chapter 1.
- <sup>142</sup> See Chapter 2.3.2 (a) on national sovereignty.
- <sup>143</sup> Paragraph 6 of preamble.
- <sup>144</sup> See Chapter 5 Fn. 87, under secondary references to hazardous waste importation into other developing countries, where the illegal importation of toxic waste from Italy into Koko, Nigeria, is discussed.
- <sup>145</sup> *Ibid.*
- <sup>146</sup> *Ibid.*
- <sup>147</sup> See Peter, CM "The Right to a Clean and Satisfactory Environment: A Note on the Export of Toxic Waste to Africa" (1990) 6(2) *Lesotho LJ*, 23-51, for discussions on instances involving these countries as well as similar cases involving Benin and some other African countries. See also, Vu, HQ, "The Law of Treaties and the Export of Hazardous Waste", 12 *UCLA JELP* (1994), 389. Similar examples are discussed in Chapter 5.4.8, under secondary references on illicit toxic waste imports from the first world into Africa.
- <sup>148</sup> See fn. 12 Chapter 2 on UNEP. See also, Glazewski (2000), *Supra* 148.
- <sup>149</sup> See fn. 12 Chapter 2 on FAO.
- <sup>150</sup> Reference has been made to the Cairo Guidelines in paragraph 8 of the OAU Council of Ministers Resolution on Dumping of Nuclear and Industrial Waste in Africa, May 23, 1988, 28 ILM 567 (1989).
- <sup>151</sup> Reference is also made to this Convention in paragraph 9 of the OAU Ministerial Resolution (1989), *Ibid.* For historical development of the Bamako Convention, see Kummer (1995), *Supra* 142, at 99-100; and Glazewski (2000), *Supra* 147.
- <sup>152</sup> See Articles 4(1)(c) and 4(2)(f), Articles 6 and 7, Annex VA and 15(4); See also, Kummer (1995), *Ibid.* at 65-67.
- <sup>153</sup> Article 4(2)(d).
- <sup>154</sup> Article 8.
- <sup>155</sup> Article 4(2)(a).
- <sup>156</sup> See for example, Articles 7(c) and 4(3).
- <sup>157</sup> Article 4(2)(b).
- <sup>158</sup> See *Ibid.* and Article 4(2)(g).
- <sup>159</sup> Article 10.
- <sup>160</sup> Founded in 1961 as the successor to the EEC, the OECD consists of Western European countries, Australia, Canada, Japan, New Zealand and the USA. Its main preoccupations are to enhance economic growth, full employment as well as financial stability and trade on a "multilateral, non-discriminatory basis", See Jackson et al, Jackson et al *Legal Problems of International Economic Relations, Cases, Materials and Text on the National and International Regulation of Transnational Economic Relations* St Paul, Minn: West Pub. Co, (1995) at 275.
- <sup>161</sup> Lipman, Z "Transboundary Movement of Hazardous Waste: Environmental Justice Issues for Developing Countries", produced in Glazewski, J and Bradfield, G *Environmental Justice and the Legal Process* Juta & Co. Ltd (1999), 266-286, at 276. On the Ban Amendment, see Wirth, DA "Trade Implications of the Basel Convention Amendment Banning North-South Trade in Hazardous Wastes", *RECIEL*, Vol. 7, Issue 3, 1998, 237-248, esp. at 238-239, on "The Ban Amendment".
- <sup>162</sup> See Third COP of Basel, discussed in Chapter 3.4.1(f)(a)(ii), and fn. 196 *infra*.
- <sup>163</sup> Article 4A.
- <sup>164</sup> See Third COP of Basel, discussed in Chapter 3.4.1(f)(a)(ii), and fn. *infra*.
- <sup>165</sup> [http://www.ban.org/Deposit\\_Box.html](http://www.ban.org/Deposit_Box.html). See also, <http://www.basel.int/watsnew/news.html>.
- <sup>166</sup> Rutinwa, B, "Liability and Compensation for Injurious Consequences of the Transboundary Movement of Hazardous Waste", *RECIEL* (Focus on: Africa), Volume 6, Issue 1, 1997, 7-13, at 9-12. See also, Kummer, K "The Basel Convention: Ten Years On", *RECIEL*, Vol. 7, Issue 3, 1998, 227-236, at 232-234, from discussions on liability and compensation up to illegal traffick monitoring. On the importance of a

Protocol on Liability, see Lawrence, P "Negotiation of a Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal", *RECIEL*, Vol. 7, Issue 3, 1998, 249-255, especially at 250-251.

<sup>167</sup> Article 4.

<sup>168</sup> See Chapter 3.4.4.

<sup>169</sup> Article 8.

<sup>170</sup> See Chapter 3.2.10.

<sup>171</sup> Article 9; See also, Rutinwa (1997), *Supra* 168, at 9.

<sup>172</sup> See the *Chorzów Factory Case* *Supra* 23, for more discussions on these principles.

<sup>173</sup> See Chapter 3.4.2 (e) under discussions pertaining to the establishment of a Protocol on Liability and Compensation under the Bamako Convention.

<sup>174</sup> Article 8.

<sup>175</sup> This provision is similar in this sense to Article IV of the US-Mexico Agreement Regarding the Transboundary Shipment of Hazardous Wastes and hazardous Substances, Washington, 12 November 1986, reprinted in (1987) 26 ILM; See also Principle 3 of the 1984 OECD Decision on Transboundary Movement of Hazardous Waste.

<sup>176</sup> Discussions with official at Legal Division, Ministry of Environment, Science and Technology, Accra, Ghana, December 2002 to June 2003.

<sup>177</sup> Discussions with official at the Ministère de l'Environnement, Abidjan, Côte d'Ivoire, January to June 2003.

<sup>178</sup> Discussions with official at the DEAT, Pretoria, South Africa, April 2002 to May 2003.

<sup>179</sup> See Chapter 3.4.12 (c) on the EU-ACP Agreement.

<sup>180</sup> See for example, Centre Régional de la Convention de Bâle pour l'Afrique Francophone, Dakar, Senegal, *Rapport Final, Atelier Régional de Sensibilisation sur les mouvements transfrontaliers de déchets dangereux et de leur élimination en Afrique de l'Ouest*, Dakar, Senegal, 06-08 Février 2002, Dakar, at 1, 8ième paragraphe, that is, the Final Report on Workshop of BCRC, 6-8 February 2002, Dakar, Senegal, Paragraph 8, which exhorts all African countries to ratify the Ban Amendment.

<sup>181</sup> On uniformity in this context, see last paragraph of Chapter 1.1.4; See also, Chapter 6(B) on definition of hazardous waste and Chapter 6(A) on African countries' approaches to trade in toxic waste.

<sup>182</sup> See Chapter 5.6.4 on discussions pertaining to Côte d'Ivoire's Law on Toxic and Nuclear Waste (1988) in this regard and recommendations for better functioning.

<sup>183</sup> See relevant discussions in Chapter 6 on Policy and Chapter 7 on Model Law.

<sup>184</sup> See Chapter 5.3 on discussions relating to Factors Responsible for the Imports of Hazardous Waste during the course of free trade and proposed solutions. See also relevant recommendations for charting the way forward in Chapter 6, under policy.

<sup>185</sup> Information from Basel Secretariat, Geneva, Switzerland, December 2002. On evaluation of the Basel Convention, see also, Puckett, J "The Basel Ban: A Triumph Over Business As Usual", Basel Action Network, updated 1 October 1997; Hunter, D et al *International Environmental Law and Policy* New York Foundation Press (1988), 856-876.

<sup>186</sup> Article 14; See also Decision I/13 of First COP, December 1992.

<sup>187</sup> See for instance, I/13 and I/20 of 1st Basel COP, December 1992 on the Establishment of Basel Convention Regional Centres for Training and Technology Transfer; UNEP Decision UNEP/CHW.6/L.1/Add.1 which adopts the core set of elements for the Framework Agreement to be signed between the Basel Secretariat, on behalf of the Conference of Parties on the one hand and the Representatives of the Host Countries' Government on the Other; UNEP Document UNEP/CHW.6/L.1 which includes requests to the Basel Secretariat to continue training activities and promoting awareness. See also, UNEP Documents UNEP/CHW.6/3, December 1992 and UNEP/CHW.6/4, December 1992, on the Establishment and Functioning of the Basel Convention Regional Centres for Training and Technology Transfer.

<sup>188</sup> See Basel Convention Regional Centre, *Newsletter* (May 2001).

<sup>189</sup> *Ibid.*

<sup>190</sup> *Ibid.*

<sup>191</sup> *Ibid.*

<sup>192</sup> *Ibid.* See also, *Progress Report on the Basel Convention Regional Centre Activities*, UNEP Document UNEP/CHW.6/5, for an evaluation of the workings of Basel; BCRC Pretoria, *A Short Report to WTO Regional Workshop on Trade and Environment for English Speaking African Countries*, 20th May 2003, Cape Town, South Africa, where the activities of this particular BCRC are discussed. These include more education and training programmes in many areas of toxic waste including general and hazardous waste management, medical waste management, a course of inventories and environmental audits, in an elaborated workplan, for the years 2003-2006. Past activities between 2001-2003 are also discussed in this report.

<sup>193</sup> Centre Régional de la Convention de Bâle pour l'Afrique Francophone, Dakar, Senegal, *Rapport de la Réunion, Deuxième Réunion du Comité Directeur du Centre Régional de la Convention de Bâle pour l'Afrique Francophone*, 05 Février 2002, Dakar, Senegal.

<sup>194</sup> See discussions on Inter-Agency Scheme, under Chapter 6(B).

<sup>195</sup> See Decision I/22 of Basel COP1, urging a Ban Decision, December 1992, and Decision I/5 requesting the institutionalization of a Protocol on Liability and Compensation, Basel COP 1, December 1992. See also, Chapter 3.4.1 (c) on History of Total Ban Amendment. The convening of COPs conform to the requirements of Article 15 of the Basel Convention on the need for such COPs.

<sup>196</sup> See Decision II/12 of Basel COP 2, on Ban Decision, March 1994, and Decision of COP 2 on Liability, March 1994; See also, Chapter 3.4.1 (c), Ibid.

<sup>197</sup> See Decision III/1 on Total Ban Amendment, September 1995, discussed in Chapter 3.4.1, Ibid. See also, UNEP document, UNEP/CHW.3/34, 17 October 1995.

<sup>198</sup> As a matter of fact, this COP arrived at two major decisions, relating to the establishment of hazardous waste lists and an amendment to Annex VII. Hazardous wastes, grouped in list A, are banned and comprise exports of wastes containing arsenic, lead, mercury, asbestos and dozens of other chemicals and substances. Non-hazardous wastes, placed in list B, are exempt from being banned. This class of wastes can be safely and profitably recycled or re-used, including scrape, iron, steel or copper, certain electronic assemblies, non-hazardous chemical catalysts, many ceramics solid plastics, as well as paper and textile wastes.

<sup>199</sup> <http://www.basel.int> on COP 5.

<sup>200</sup> On collaboration in this context, see UNEP Document UNEP/CHW.6/CRP.13 on Draft Decision Adopted by Plenary Without Amendment, linking the workings of the Secretariats of the Basel Convention, AMCEN, NEPAD and BCRCs in Africa, December 2002. On the guidelines of Basel being cited here, see for example, UNEP (2002) Documents UNEP/CHW.6/20 and Corr. 1, on Biomedical and Healthcare Wastes; UNEP/CHW.6/21 relating to Basel Technical Guidelines on the Environmentally Sound Management of Plastic Wastes; UNEP/CHW.6/22 relating to Basel Technical Guidelines on the Environmentally Sound Management of Waste Lead Acid Batteries; UNEP/CHW.6/23 relating to Basel Technical Guidelines on the Environmentally Sound Management in the Full and Partial Dismantling of Ships.

<sup>201</sup> See UNEP Document UNEP/CHW.6/L.1 on decision to co-operation with the WTO and seek observer status in the WTO's Committee on Trade and Environment.

<sup>202</sup> See UNEP Document UNEP/CHW.6/CRP.20, December 2002 on Basel's Mobile Phone Initiative. For other details on this initiative, see also, Report on Behalf of The Swiss Presidency of the Basel Convention and Secretariat of the Basel Convention, *Initiative for a Sustainable Partnership on Environmentally Sound Management of End-Of-Life Mobile Phones*, 18<sup>th</sup> November 2002 and Report of the First Meeting of the Mobile Phone Working Group, held from 7 to 8 April 2003 in Geneva, Switzerland.

<sup>203</sup> See Chapter 3.2.10 under BCRC, Dakar and the principle of common but differentiated responsibility in this regard, Supra 133.

<sup>204</sup> <http://www.basel.int> on COP 7.

<sup>205</sup> Discussions with Basel Secretariat, October 2002. See also, the principle of common but differentiated responsibility discussed in Chapter 3.2.10.

<sup>206</sup> See discussions under legal status of the centres and institutional arrangements as well as financing mechanisms, Consultative Meeting of the Basel Convention Regional Centres, *Report of the Secretariat on the Meeting*, Cairo, Egypt, 4 to 5 April 2002, Cairo, Egypt, Annex 3, at 14; See also, Centre Regional de la Convention de Bâle pour l'Afrique Francophone, Dakar, Senegal, 05 Février, 2002, Supra 193, under discussions relating to "problématique générale" (that is, the general problem), at 1.

<sup>207</sup> See Chapter 2.3.2 (a) on national sovereignty.

<sup>208</sup> See discussions relating to Bamako and the MFN clause in Chapter 2.3.1(a).

<sup>209</sup> See Glazewski (2000), Supra 148, at 57. See also, Tladi, D "The Quest to Ban Hazardous Waste Import into Africa: First Bamako and Now Basel", *CILSA Vol. XXXIII Vol. I* (2000), 210-226, at 216-219, esp. at 210-214; on comparative review of respective mandates of Basel, Bamako and Basel Ban, see Tladi (2000), at 214-225.

<sup>210</sup> Discussions with officials from Ministries of Environmental Affairs in three case study countries, 2002-2003.

<sup>211</sup> See OAU Resolution CM/Res. 1153 (XLVIII), 23<sup>rd</sup> May 1988; Reproduced in 28 ILM 567 (1989); The Session was convened from 19 to 23 May 1988; For further references, see other statements issued by African organizations and conferences, for example, ECOWAS Resolution A/RES.I/6/88, on the Dumping of Nuclear and Industrial Waste (June 1988); statements of the African preparatory Conferences for UNCED, convened under the aegis of UN/ECA in Cairo (July 1991) and Abidjan (November 1991), respectively reproduced in Kwiatkowska and Soons, (1993), 979 et seq., cited in Kummer (1995), Supra 142, at 99, fn. 27.

- <sup>212</sup> Article 1. See also, Peter (1990) Supra 152, at 23.
- <sup>213</sup> Article 2.
- <sup>214</sup> Article 3.
- <sup>215</sup> Article 4.
- <sup>216</sup> Article 8. See the OAU Council of Ministers Resolutions CM/Res. 1199(XLIX), February 1989; CM/Res. 1225(L), July 1989 and CM/Res. of February 1990, which adhere to this position and focus on the elaboration of a common African position in the form of an African convention to address the continent's common concerns.
- <sup>217</sup> Article 5.
- <sup>218</sup> Article 6.
- <sup>219</sup> Article 7.
- <sup>220</sup> Article 11.
- <sup>221</sup> Article 11.1.
- <sup>222</sup> Glazewski (2000), Supra 209, at 56.
- <sup>223</sup> Article 10.
- <sup>224</sup> Article 13.
- <sup>225</sup> Article 6.
- <sup>226</sup> Article 4(1).
- <sup>227</sup> See Article 13(b) and Article 13 generally.
- <sup>228</sup> Article 4.3(f).
- <sup>229</sup> Article 4.3(g).
- <sup>230</sup> Article 5.1.
- <sup>231</sup> Article 5.4.
- <sup>232</sup> Article 5.2.
- <sup>233</sup> Article 5.3.
- <sup>234</sup> Article 15.
- <sup>235</sup> See Article 16.
- <sup>236</sup> See Article 16(c) on presentation of reports by Secretariat to COPs concerning activities undertaken, Article 16(e) regarding its communication with the Dumpwatch and other focal points, and generally, Article 16, for the functions of the Secretariat.
- <sup>237</sup> Article 19.
- <sup>238</sup> Article 14.
- <sup>239</sup> Article 12.
- <sup>240</sup> Discussions with official at MEST, Accra, Ghana, 2002-2004.
- <sup>241</sup> This would be in accordance with Article 11 of the Bamako Convention.
- <sup>242</sup> Ibid.
- <sup>243</sup> See Answer to Question 6(b), under Findings of Research Project, on (C), La Côte d'Ivoire; Discussions with officials at the Ministère de l'Environnement, Abidjan, Côte d'Ivoire, Supra 90, also confirmed this.
- <sup>244</sup> See Chapter 2.3.2(b) (ii); See also, <http://www.nepad.org>.
- <sup>245</sup> See discussions in Annex 3A, Question 8(c), on analysis based on answers to Question 8(c), for improvements in current legal systems on toxic waste importation and exportation under findings from Ghana.
- <sup>246</sup> See Chapter 2.3.1 (a) under discussions on the relationship between the MFN clause and the Bamako Convention and also, Chapter 2.3.2(a) under WTO Article XX (b) and (g).
- <sup>247</sup> *The New African Magazine*, May 2002, indicated that as at this date, the OAU was owed US\$ 53.54 million by 45 of its 54 member countries. To date, the only nine member states who had paid their dues were Angola, Botswana, Cameroon, Ethiopia, Mauritius, Namibia, South Africa, Swaziland and Zambia.
- <sup>248</sup> Meeting of 16<sup>th</sup> April 2002 with Mr. Buti Mathebulu, Department of Environmental Affairs and Tourism, Pretoria, Republic of South Africa.
- <sup>249</sup> Article 4.3(b).
- <sup>250</sup> Lipman (1999), Supra 158, at 286. Kitt, J "Waste Exports to the Developing World: A Global Response" (1995) 7 *Georgetown IELR*, 485, at 502.
- <sup>251</sup> Article 8. See also, Supra 173.
- <sup>252</sup> Supra 146.
- <sup>253</sup> UNEP *Global Environmental Outlook* Earthscan (2000) at 223.
- <sup>254</sup> Telephonic interview of 11<sup>th</sup> and 12<sup>th</sup> July 2002 with Senior Officer, Industry, Science and Technology, Energy, Environment and Natural Resources Division, African Union (AU), Addis Ababa, Ethiopia; Subject: Update on the Bamako Convention in connection with its implementation, its successes and challenges in this regard.
- <sup>255</sup> Telephonic interview of 11<sup>th</sup> and 12<sup>th</sup> July 2002, Ibid.
- <sup>256</sup> Article 5 of Bamako.

- <sup>257</sup> Supra 255.
- <sup>258</sup> Ibid; See also UNEP (2000), Supra 253.
- <sup>259</sup> See Chapter 5.3.2 under Inter-Agency Permit Scheme and Section 3 of model law, Chapter 6.
- <sup>260</sup> *Somalia: OAU Concerned Over Toxic Waste Dumping*, Inter Press Service, September 24, 1992, available in Lexis, Nexis Library, WIRES File; see also, Vu (1994), Supra 152, 389 (Available at <http://www.kicon.com/nhien/Basel.htm>, 1-34, at 15).
- <sup>261</sup> See Supra 210.
- <sup>262</sup> Discussions with AU official (2002), Supra 255. See also, Eguh, EC. "The Bamako Convention and the First Meeting of the Parties: A Glance at Implementation Strategies", *RECIEL*, Vol. 7, Issue 3, 1998, 256-267, at 260-262 on "The First Meeting of the Conference of Parties", for further discussions.
- <sup>263</sup> See Peter (1990), Supra 212, at 37.
- <sup>264</sup> See Chapter 2, fn. 95.
- <sup>265</sup> See Rotterdam Convention, Text and Annexes, Supra 104, at 1, for this historical overview.
- <sup>266</sup> Article 1.
- <sup>267</sup> See Rotterdam Convention, Supra 265, Annex for original list of controlled pesticides at the inception of the Convention. See also, News Highlights FAO of the UN (1999), Supra 105 and Stibravy, WJ (2003), Supra 105, for extended list.
- <sup>268</sup> Article 17.
- <sup>269</sup> See Chapter 3.4.3(e) on relevant discussions pertaining to the challenges which are faced in the implementation of Rotterdam.
- <sup>270</sup> See Glazewski (2000) Supra 222; See also, Research findings in Annex 3(c), Question 6(c.).
- <sup>271</sup> Discussions with officials at Ministries of Environmental Affairs, South Africa, Ghana and Côte d'Ivoire, 2002 to 2004.
- <sup>272</sup> Discussion with official from World Bank Country Office. Accra, December 2002.
- <sup>273</sup> See recommendation in Chapter 3.4.3(d).
- <sup>274</sup> Sixth Basel COP, WSSD and Johannesburg Plan of Action, <http://www.basel.int>.
- <sup>275</sup> Fn. 62, Chapter 1. For referencing on status of Rotterdam in 2003 and prediction of status by 2004, see Opening Address by UNEP Executive Director, Klaus Toepfer, "Strategic Approach to International Chemicals Management" PrepCom1, Bangkok, 9-13 November 2003.
- <sup>276</sup> Article 17.
- <sup>277</sup> Ibid.
- <sup>278</sup> See Mc Ginn, AP "From Rio to Johannesburg: Reducing the Use of Toxic Chemicals Advances Health and Sustainable Development", Washington DC, June 25, 2002.
- <sup>279</sup> See *Yearbook on International Co-operation and Development 2003/2004*, "Agreements on Environment and Development, Stockholm Convention on POPs"; For a historical background to the Stockholm Convention, see Stockholm Convention on Persistent Organic Pollutants (POPs), Text and Annexes, Introduction, at 1.
- <sup>280</sup> Annex A.
- <sup>281</sup> See for example, Articles 3, 5, 6 and 7.
- <sup>282</sup> See for example, Article 8.
- <sup>283</sup> <http://www.pops.int>.
- <sup>284</sup> Fn. 63, Chapter 1.
- <sup>285</sup> Mc Ginn (2002), Supra 278.
- <sup>286</sup> See fn. 279.
- <sup>287</sup> Chapter 19.
- <sup>288</sup> Chapter 20.
- <sup>289</sup> See fn. 291 Infra.
- <sup>290</sup> Ibid.
- <sup>291</sup> Earth Summit +5, *Special Session of the General Assembly to Review and Appraise the Implementation of Agenda 21*, New York, 23-27 June 1997, <http://www.un.org/ecosocdev/geninfo/sustdev/toxic.htm>. Furthermore, the development of the Stockholm Convention, the global, legally binding instrument on the use of the 12 specified POPs is a significant achievement. The need for such an organ was identified in the Earth Summit +5. In 1998, this instrument was established.
- <sup>292</sup> See Network 2002- November Issue, *Sustainable Development: Which Way Now?*
- <sup>293</sup> See fn. 200 of Chapter 2.
- <sup>294</sup> See <http://www.biodiv.org/programmes/socio-eco/traditional/links.asp?grp=UN>.
- <sup>295</sup> See [http://www.unctad.org/trade\\_env/test/projects/philippines.htm](http://www.unctad.org/trade_env/test/projects/philippines.htm);  
[http://www.unctad.org/trade\\_env/test/publications/battery1.pdf](http://www.unctad.org/trade_env/test/publications/battery1.pdf);  
[http://www.unctad.org/trade\\_env/test/publications/ulrichmea.pdf](http://www.unctad.org/trade_env/test/publications/ulrichmea.pdf); "Building National Capacity in Rapidly Industrialising Countries on Sustainable Management of Recoverable Material/Resources", Bangkok, Thailand, 20-22 September 2001.

<sup>296</sup> The other five areas covered by the Global Environmental Facility are biodiversity, climate change, degradation of international waters, land degradation and Persistent Organic Pollutants. For further details on the GEF, See Sjöberg, H "The Global Environment Facility", in Werksman (1996), Fn. 310 *Infra*, at 148-162; <http://www.gefweb.org> and <http://www.undp.org/gef/>.

<sup>297</sup> See *Prevention of Human and Environmental Exposure to DDT and other Toxic Pesticides and Strengthening of Malaria Control Programmes in Africa* Project Document, Project ID:1331, implemented by the Global Environmental Facility Agency UNEP and Executing Agency, WHO. The other beneficiary countries of this project include Eritrea, Namibia and Madagascar, <http://www.gefonline.org/pipeline.org/pipelinelist.cfm>.

<sup>298</sup> <http://www.csd.org>.

<sup>299</sup> See <http://www.un.org/esa/agenda21/natlinfo/countr/ghana/natur.htm#oceans>, for the case of Ghana; <http://www.un.org/esa/agenda21/natlinfo/countr/cotedi/natur.htm#oceans>, for the case of Côte d'Ivoire and <http://www.un.org/esa/agenda21/natlinfo/countr/southafrica/natur.htm#oceans>, for the case of South Africa.

<sup>300</sup> Shaw, S "Trade and Environment: The Post-Singapore WTO Agenda", *RECIEL*, Volume 6, Issue 2 (1997), 105-111, at 106. See fn. 84 and 128 of Chapter 2 on the establishment of the WTO's Committee on Trade and Environment.

<sup>301</sup> This actually leads to a scenario where stringent environmental standards lead to better quality products in international trade, as shown in Chapter 3.5.1(a), under product substitution and improved market access, which result from the incorporation of environmental considerations into manufacturing processes.

<sup>302</sup> See *WTO Carcinogenic Asbestos Case*, discussed in Chapter 2.3.1(b) under national treatment and Chapter 4.4.3, within the context of relevant cases in WTO jurisprudence which deal with striking a balance between ecological protection and economic activity.

<sup>303</sup> See <http://www.asp.org>; Report of UNEP Chemicals, Meeting of Steering Committee of the Africa Stockpiles Programme, Geneva, Switzerland, 29-31 October, 2002; See also, *Supra* 133.

<sup>304</sup> See for example, the expeditious action taken by Greenpeace International in the case of illegal shipments of scrap for dismantling of ships from France to Turkey, May 2002, <http://www.greenpeace.org/pressreleases/toxics/1996may9.html>.

<sup>305</sup> See for example, relevant discussions in Chapter 2.7.2 (b) on this point.

<sup>306</sup> Schoenbaum, T "International Trade and Environmental Protection", in Birnie, PW and Boyle, AE *International Law and the Environment* Oxford University Press Second Edition (2002), 697-750, at 717-718.

<sup>307</sup> Schoenbaum (2002), *Ibid*, provides these details relating to the requirements of the German Law.

<sup>308</sup> See discussions recommending uniformity, under Chapter 3.4.2(d).

<sup>309</sup> Based on Preamble to WTO Agreement. See Preamble of Chapter 6(A) on proposed policy reforms on sustainable development in model treaty; On sustainable development, see generally, Chapter 3.2.1.

<sup>310</sup> See Chapter 4.7 *infra* and <http://www.nafta.org>, for these details on the workings of the NAFTA's environmental component. See also, Werksman, J *Greening International Institutions* Foundation for International Environmental Law and Development, Earthscan Publications Limited, London (1996), for the workings of the environmental mechanism of NAFTA.

<sup>311</sup> See BCRC Pretoria, *Project Proposal, Study on the Status of Implementation of Environmental Conventions (Related to Hazardous Waste and Other Wastes) in Africa and Development of Guide Books for Law and Policy Makers to Enhance Harmonization in Environmental Policy and Legislation Formulation, Contribution Towards the Implementation of the Environmental Component of the New Partnership for African Development*, Submitted to the Royal Norwegian Embassy, Pretoria, 24<sup>th</sup> March, 2003, at 5; See esp., Chapter 1.2 of this Report on the activities of NEPAD with regard to environmental protection, and also, Chapter 4 of this Report concerning the aspirations of NEPAD on the environment. For further referencing, see Report of UNEP, *Draft Action Plan for the Environment Initiative of the New Partnership for Africa (NEPAD)*, April 2003, especially paragraph 6, relating to NEPAD on sustainable development; See also, World Conservation Union, *Environment for Sustainable Development in Africa, Report of the Experts Meeting Preparatory to the World Summit for Sustainable Development*, 23-25 April 2002, Dakar, Senegal. These reports discuss the Environmental Initiative of the NEPAD. Discussions with NEPAD Official in May 2003, confirmed the commitment of this initiative to environmental considerations, and particularly, on the Africa Stockpiles Programme. On the Africa Stockpiles Programme, see Chapter 3.4.11. On collaboration amongst the NEPAD and other initiatives, see UNEP Document (2002), *Supra* 200.

<sup>312</sup> See Chapter 2.3.2(b)(ii) on point concerning collaboration of NEPAD with the Secretariat of the Bamako Convention, the AU. See also, UNEP Document (2002), *Ibid*.

<sup>313</sup> See Report on "Proceedings of Workshop on NEPAD's Programme on Africa's Environmental Information Network", Pretoria, South Africa, February 2003.



- <sup>314</sup> See fn. 94 of Chapter 2.
- <sup>315</sup> Article 39. See also, Article 37. Hilz, C *The International Toxic Waste Trade* New York: Van Nostrand Reinhold (1992), at 152-158.
- <sup>316</sup> Article 32(1)(d); On the Cotonou Agreement, see Chapter 2.3.2(b) (ix).
- <sup>317</sup> See SADC, Agreement Amending the Treaty of the Southern African Development Community (1992), Article 5(a) on SADC's commitment to the enhancement of sustainable and equitable economic growth, *inter-alia*. See also, SADC *Sub-Regional Report* (1997), at 2.
- <sup>318</sup> SADC, *Sub-Regional Report* (1997), Ibid, at 39.
- <sup>319</sup> Discussions with SADC official, 2003, Cape Town.
- <sup>320</sup> Discussion with SADC official, 2003, Ibid.
- <sup>321</sup> See Chapter 3.2.5 on *Locus Standi*, and Chapter 6 on this point.
- <sup>322</sup> Discussion with SADC Official, 2003, Supra 319.
- <sup>323</sup> Dorm-Aborzu, cited in UNEP (2000), Supra 258.
- <sup>324</sup> On incidents of pollution in Senegal, see for example, [http://www.afrol.com/News2001/sen001\\_car\\_pollution.htm](http://www.afrol.com/News2001/sen001_car_pollution.htm), "Used Cars Pollute Dakar's Air," 2002/07/09. Hilz (1992), Supra 315, at 159, rightly opines that certain ECOWAS member states such as the Gambia and La Cote d'Ivoire have enacted stringent municipal laws. However, for the reasons given at this point, these laws should also be implemented at the regional level.
- <sup>325</sup> Article 122(6).
- <sup>326</sup> Article 125.
- <sup>327</sup> Telephonic discussions with EAC official based in Arusha, Tanzania, July 2002 and March 2004.
- <sup>328</sup> Basel Convention Regional Centre, *Volume 2: Country Profiles and Networks, Kenya*, September 2001, on types and quantity of waste, under hazardous waste generation, at 1. In Tanzania, the ongoing pollution caused by the now closed Tanzania-Zambia oil refinery pipeline, cannot be overlooked, see Basel Convention Regional Centre, *Volume 2: Country Profiles and Networks, Tanzania*, September 2001, at 1.
- <sup>329</sup> See Chapter 2.3.2(b) (vi) and fn. 112 of Chapter 2.
- <sup>330</sup> See Chapter 2.3.2(b) (vi) and fn. 111 of Chapter 2.
- <sup>331</sup> Discussion with official at South Africa's DEAT, 2002, Supra 178.
- <sup>332</sup> See Egypt's Law 1994/4, discussed by DEAT in Annex 3, B on South Africa, Findings of Research Project, Question 10.
- <sup>333</sup> See fn. 114 of Chapter 2, and Chapter 2.3.2(b)(vii) on the Indian Ocean Commission and relevant aspects on environmental considerations.
- <sup>334</sup> Wong, R Executive Vice President of the Favorita Fruit Company in Ecuador, reproduced in Najam, A and Robins, N "Seizing the Future: the South, Sustainable Development and International Trade", *LA*, 77, 1 (2001), 49-68, at 56; see also fn. 26 at 56.
- <sup>335</sup> See fn. 184 of Chapter 2.
- <sup>336</sup> See fn. 185 of Chapter 2.
- <sup>337</sup> See successful narrational account of this project, given by Mr. Toniho, a local Ghanaian farmer, SABC News, Friday, 30<sup>th</sup> August 2002, at 19:00 hours and 20:00 hours.
- <sup>338</sup> See Chapter 5.4.11.
- <sup>339</sup> See Chapter 5.4.4.
- <sup>340</sup> See Chapter 5.4.15 for further details on the Côte d'Ivoire's La Société Ivoirienne de Raffinage.
- <sup>341</sup> Supra 272.
- <sup>342</sup> Supra 271.
- <sup>343</sup> See Chapter 3.4.1(a)(ii) under activities of BCRC Dakar.
- <sup>344</sup> See for example, UNEP (2002) on UNEP projects on toxic waste, cited in Supra 200; UNEP (2002) and (2003), Supra 202.
- <sup>345</sup> See for example, Congressman Tom Allen Press Release, "Representative to Introduce Bill to Stop Used Mercury from Being Dumped in Third World Countries", Portland, Maine, USA, 25 January 2001 (Also available at [http://www.ban.org/ban\\_news/representative.html](http://www.ban.org/ban_news/representative.html)).
- <sup>346</sup> Knight, CF et al "After the Crisis" *The EF* (The Policy Journal of the Environmental Law Institute), May/June 1995, Volume 12, Number 1, at 22-27.
- <sup>347</sup> See also, Chapter 3.2.3, under points on approach of Basel to parties' having new technologies through the adherence to sound environmental principles.
- <sup>348</sup> ECOWAS and FAO, "Pesticide Management in West Africa/Gestion des Pesticides en Afrique de l'Ouest", Number 2 (August 2001), at 4-6.
- <sup>349</sup> See paragraph 4 of Chapter 2.7.1(b) for instance.
- <sup>350</sup> Supra 188.
- <sup>351</sup> See for example, Chapter 5. 4.4.
- <sup>352</sup> See for example, relevant discussions in Chapter 2.7.1(a).

<sup>352</sup> See also, the Sectors of Oil and Gas: "Fuelling Sustainable Development", where achievements include management systems for continuous improvement of environmentally sound principles such as EHS performance. Understandably, this facilitates contributions to development through technology co-operation and capacity building in host countries, UNEP (2002), Supra 349, at 86.

<sup>353</sup> See for example, Chapters 4.4.1 and 4.4.8 on these two cases respectively.

<sup>354</sup> Charnovitz, S, "Exploring the Environmental Exceptions in GATT Article XX", *JWT* 1991 (25,5), 37-56, at 41, points out that this enigmatic standard was not defined and discusses these conventions. More light is thrown on this with further examples, in Chapter 4.

<sup>355</sup> Vaughan, S. "Trade and Environment: Perspectives of Developing Countries," (08/26/97) at 2, available at <http://www.unep.ch/t&e/epoc.html>.

<sup>356</sup> See ILM 1594; GATT Doc. 21/R (3 September 1991) and (1994) ILM 839 (May 1994).

<sup>357</sup> WT/DS58/AB/R; (1999) ILM 118.

<sup>358</sup> Falk, R, "The Liberalisation Agenda of the North and the Marginalisation of the Poorest Countries: the LDC Problematic at the First Ministerial Conference of the WTO in Singapore" (BUKO Agrar Info Nr. 59, January-February 1997, available at [http://www.inx.de/~usp/info/59\\_e.htm](http://www.inx.de/~usp/info/59_e.htm)).

<sup>359</sup> See Ramphal, S (former Secretary-General of the Commonwealth) in Najam and Robins (2001), Supra 333, at 52-53. The incorporation of environmental concerns into trading agreements has been on going since Seattle. For Najam and Robins, this had been done with little regard for the world's poorest. See the *Seattle Times* and the *Baltimore Sun*, for instance, which portrayed developing countries to be anti-environmental and adhering to all sorts of pollution-intensive practices, the exploitation of natural resources, without due regard for environmental concerns, cited in Najam and Robins (2001), at 53.

<sup>360</sup> BISD 35 Supp. 98 (1988).

<sup>361</sup> See Chapter 2.4, on emerging principles in international trade.

<sup>362</sup> ECJ, 1993, p. 2087. See Chapter 3.2.2 under the precautionary approach.

<sup>363</sup> Discussions with World Bank Officials, Accra, Ghana, December 2002.

<sup>364</sup> See Chapter 3.4.1(f) on discussions relating to the activities of the Basel Convention Regional Centres and 3.2.10 on common but differentiated responsibility.

<sup>365</sup> See for example, Supra 202 on Basel's mobile phone initiative.

<sup>366</sup> See points made on ecolabelling, under the Prior Informed Consent principle, Chapter 3.2.6.

<sup>367</sup> On extraterritoriality, the converse of national sovereignty, see Chapter 2.3.2 on National Sovereignty.

<sup>368</sup> Neumayer (2001), Supra 57 as it relates to relevant aspects of the *Tuna-Dolphin* Case in Chapter 4.4.1 and the *Shrimp-Turtle* Case in Chapter 4.4.8.

<sup>369</sup> Ziegler in Neumayer (2001), Ibid, at 161.

<sup>370</sup> Krämer in Neumayer (2001), Ibid.

<sup>371</sup> Schöenbaum (2002), Supra 307, at 713.

<sup>372</sup> See Neumayer, Supra 368, at 161.

<sup>373</sup> See Neumayer's hypothesis on vehicle emission laws of Sweden, Ibid, at 161-162.

<sup>374</sup> Ibid, at 161.

<sup>375</sup> See discussions in Annex 3(A), Question 5(b), under Ghana.

<sup>376</sup> See Chapter 5.4.8.

<sup>377</sup> See Chapter 5.4.3(c), under discussions relating to the imports of paragethite from Australia into South Africa.

<sup>378</sup> See Supra 109.

<sup>379</sup> See Supra 68.

<sup>380</sup> Ibid.

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## **CHAPTER 4: THE FREE TRADE AND ENVIRONMENTAL PROTECTION DEBATE**

*“...We must do more to harmonise our goal of increasing trade with our goal of improving the environment and working conditions.”<sup>1</sup>*

### **4.1 Introductory Remarks**

This chapter analyses the trade and environmental debate generally but links the debate to trade in toxic waste where appropriate. This is done by juxtaposing these two spheres, based on respective discussions in Chapters 2 and 3. Speaking generally, Gaines points out that the two spheres of trade and the environment starkly contradict each other. He explains the trade/environment relationship as a complicated interdisciplinary policy issue that poses man with two fundamental choices, namely, :

- (a) Organizing the world in economic, political, and social terms, and
- (b) Preventing ourselves, to the best extent possible, from doing irreparable damage to the Earth's ecosystems.<sup>2</sup>

Jackson et al, in two propositions, describe the conflict between environmental protection and free trade. The first tenet requires rules of international co-operation, sanction or both, to work towards the important goal of environmental protection. International co-operation is emphasised here, so that government actions to enhance environmental protection will not be undermined by other governmental actions, including those which are sometimes trade restrictive, but have to be implemented. This thereby ties in with multilateralism, which is analysed in Chapter 3.1. According to the second proposition, trade restrictive policies will hinder the free market objective of enhancing world economic welfare and enabling many individuals to lead a satisfactory life. Through these two principles, they thereby advocate that the hostility between these two norms has been perceived to be misplaced because both sides will need the assistance of the other, in order to accomplish their respective goals.<sup>3</sup>

The main philosophy here is that international and municipal regimes should find meaningful and workable solutions to make the two objectives mutually supportive, rather

than contradictory. This is fundamentally important to this thesis, since this Chapter, while reinforcing this view, also demonstrates ways and means in which these two spheres are reconciled by the workings of the WTO, UNEP and UNCTAD. This is done while paying heed to extracting discernible lessons for policy guidance in formulating a balanced model law on toxic waste trade.

The longstanding relationship between these two spheres is reviewed first, in order to place the debate in the accurate historical context and perspective. Though the trade and environment debate is formally traced back to the early 1970s and to some extent, the beginning of the 1990s, the inherently intimate synergies between these two spheres may really not be such a recent issue. This longstanding relationship is evident, for example, in national and international efforts to implement economic laws which have sought to attain desirable environmental goals. From this viewpoint, Charnovitz acknowledges that the utilization of import and export mechanisms for the attainment of environmental objectives may not be such a new idea.<sup>4</sup> Furthermore, he cites examples of relevant conventions, both multilateral and unilateral.

To begin with, he discusses the 1882 Commercial and Maritime Treaty between the UK and France. Enshrined in this treaty were trade restrictive measures which sought to prevent cattle disease and crop destruction.<sup>5</sup> Furthermore, in 1906, Switzerland adopted the International Treaty which aimed at terminating the manufacture and importation of matches fabricated with white phosphorous, a chemical causing a loathsome disease. The main objection here was premised on the fact that the *production process* of match was potentially dangerous to the health of domestic and foreign workers, and not that the match itself was not safe in its normal use. Through the effective implementation of this treaty, producers resorted to adopting safer but more costly methods of match production without fear of being undercut by less scrupulous competitors.<sup>6</sup>

Similarly, in 1911, the agreement for the “preservation and protection” of fur seals and otters was signed amongst Great Britain, Japan, Russia and the United States. This agreement required all four parties to ban the importation of seal skin in the North Pacific Ocean. In this regard, this Convention prohibited “pelagic” sealing, a fishing method which caused unprecedented degrees of endangerment amid the female species, and wounding of the seal

population. This particular treaty successfully demonstrates the principle that multilateral action and not unilateral action was a criterion in protecting marine resources which move beyond the limits of national jurisdiction.<sup>7</sup>

Yet another case in point is the treaty to protect migratory birds which are "either useful to man or harmless", concluded in 1916, by the Great Britain (for Canada) and the United States. This treaty sought to resolve the problem of the precipitous extinction of the passenger pigeon; as it (a) established specific closed seasons for bird hunting and prohibited the export of birds during such seasons; and (b) outlawed the "international traffic" in birds taken in violation of provincial or state law".<sup>8</sup> Furthermore, in 1921, Italy and the Kingdom of Serbs, Croats and Slovenes (Yugoslavia), concluded a Convention to prohibit trade in fish caught through means which injuriously affected the spawning and preservation of fisheries.<sup>9</sup> Prescribed methods for fishing included fishing with mechanically propelled dragnets and the use of explosives "calculated to stun or stupefy" fish.<sup>10</sup>

As far as unilateral trade-restrictive, environmentally-oriented conventions were concerned, Charnovitz also states that they were replete in many countries, such as the US, which possessed a dozen of such laws by 1927.<sup>11</sup> These included the US Underwood Tariff of 1913 which banned the importation of plumes, aigrettes and feathers, originating from specified wild birds.<sup>12</sup> In 1921, Great Britain enacted similar legislation to prevent a decrease in the bird population to millinery.<sup>13</sup>

Regarding African countries, the existence of MEAs with trade-restrictive provisions over the decades, is also evident in the adoption of the Convention for the Preservation of Wild Animals, Birds and Fish in Africa in 1900. This Convention necessitated a system of export licenses for certain species "because of their rarity and danger of disappearance".<sup>14</sup>

In 1933, the Convention Relative to the Preservation of Fauna and Flora in their Natural State, which largely applied to the then colonised Africa, was also adopted.<sup>15</sup> The provisions of this Convention are more specific when compared to the 1940 Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere for instance. The latter Convention also envisages the establishment of reserves and the protection of wild animals and plants, especially migratory birds though.<sup>16</sup> Then again, in 1968, the African Convention

on the Conservation of Nature and Natural Resources, was established as a substitute to the 1933 Convention. This Convention basically made two environmental innovations, namely: (a) the recognised need to protect the habitat of endangered species as well as the species itself; and (b) the proclaimed special responsibility of the state whose territory is the sole locale of rare species.<sup>17</sup>

Despite this longstanding link between these two spheres as manifested here, the realisation of this relationship and its discussion thereof in international relations, could be seen to have been pronounced and dominant in the 1970s and even more in the 1990s. David Palmer reinforces this view thus:

“The worlds of international trade and the environment collided somewhat resoundingly in the early 1990s, much to the surprise of the world of international trade. The collision seems to have occurred first in the United States, when the Bush administration decided to go forward with talks with Mexico leading to a NAFTA. Environmental groups, decrying environmental conditions in Mexico and arguing that NAFTA would make things worse, joined traditional protectionist lobbies in opposing the pact”.<sup>18</sup>

Against this background, certain developments within the international community have also contributed to the trade and environment debate. These are discussed below.

#### **4.2 Events Within the GATT/WTO/Efforts by the International Community**

While discussing the series of events which have led to the recent awareness-raising of the relationship between trade and the environment, relevant aspects of the workings of certain international and regional trading regimes cannot be omitted. These are discussed below.

##### **4.2.1 United Nations Conference on Environment and Development (1972)**

In anticipation of the UNCED which was held in Stockholm, Sweden in June 1972, to discuss *inter-alia*, the inclusion of environmental concerns into trading regimes, developing countries begun to manifest apprehensive sentiments about the protectionism, marginalisation and similar negative effects which this could have on their trading positions in the international market. In response to this, in June 1971, a preparatory meeting to

UNCED was convened to this Conference, in Founex, Switzerland, to address these concerns.<sup>19</sup> The outcome of the deliberations of this meeting was expressed in the Founex Report, June 1971, where it was stated *inter-alia*: “There are growing fears in the developing world that the current environmental concerns in the developed countries will affect them adversely in the fields of trade, aid and transfer of technology”.<sup>20</sup>

In addition to the Founex Report, another important result of this meeting was Resolution 2849 (XXVI), passed by the United Nations General Assembly in December 1971. This resolution basically required that:

- (a) No environmental policy should adversely impact the present or future development possibilities of the developing countries;
- (b) The Secretary-General of UNCTAD was to prepare a comprehensive study to be submitted to the Conference at its 3<sup>rd</sup> Session on the effects of environmental policies of developed countries which might possibly affect the current or prospective development possibilities of developing countries by means of trade obstacles, non-tariff barriers, and other similar measures.<sup>21</sup>

In conformity with the second requirement (b) of Resolution 2849 (XXVI), the required UNCTAD report was completed in March 1972. It was further submitted to the 3<sup>rd</sup> session of the UNCTAD III in Santiago de Chile in May 1972. The report denounced the then existent meagre information and lack of data in this field.<sup>22</sup> As a result of this, the Report further advocated that the possibility of environmental actions by developed countries having a profound and multiple impact on the growth and external economic relations of developing countries could not be underestimated.<sup>23</sup> Consequently, UNCTAD III adopted Resolution 47 (III) which admonished the then forthcoming UNCED to take into consideration “the relations between trade and environment and development, especially of developing countries, and called the attention of the Conference to the report of the UNCTAD secretariat”.<sup>24</sup>

Following this, the UNCED was organised in 1972. One important outcome of this Conference was Recommendation 103 which called on developed countries to ensure that environmental concerns do not serve as trade barriers to developing countries and that the



latter group of countries be granted adequate compensation, should such discrimination occur.<sup>25</sup> Even though this recommendation sought to enhance the interests of developing countries such as the three case study countries being discussed in this thesis, and could in this sense be seen as reinforcing the principle of common but differentiated responsibility discussed in Chapter 3.2.10, Canada and the US, opposed to the concept of compensation, even sought to empower this group of countries rather than the “dependency syndrome” position. Therefore, these two countries could be said to have advocated the empowerment of developing countries by suggesting that financial or technical assistance be made readily available to enable these countries bring their export products into compliance with the stricter environmental standards of developed countries.<sup>26</sup>

In the light of these efforts, the UN could be said to have worked to prevent disguised protectionism and other similar problems which LDCs have sometimes encountered as a result of the inclusion of environmental concerns in international trade. These have been analysed in Chapter 3.5.2 (b). It could be said that in so far as the international community has convened meetings and passed UN resolutions to address this issue, this is commendable. The fact that such problems have somewhat persisted until today may also owe to the fact that work was not continually carried on this issue up until 1991, and little interests have been expressed by LDCs about including environmental considerations into trading regimes, as evident below.<sup>27</sup> This viewpoint of this thesis stands contrary to general perceptions which hold that meetings such as UNCED, WTO and similar conferences only exist to protect the interests of developed countries and environmental concerns are only included into these regimes, to marginalise developing countries, as highlighted in relevant portions of Chapters 3.5.2(a) and 3.5.2(b).

#### 4.2.2 GATT/Environmental Measures in International Trade (EMIT)

In 1971, the GATT secretariat published a research report on Industrial Pollution Control and International Trade. This research report focused on trade effects caused by environmental regulations concerning industrial processes rather than those concerning products. It further dwelt on the considerable influence which environmental regulations may have on international trade and capital flows.<sup>28</sup>

Subsequent to this, the GATT secretariat established the Group on EMIT in November 1971, to deal with relevant trade and environment issues. For two decades, the work of this group was more or less inactive, as it was not called upon to convene a meeting or review any matters in the trade and environment spheres.<sup>29</sup> On the other hand, it is remarkable that the reactivation of the work of this Group greatly contributed to the establishment of the current WTO's Committee on Trade and Environment, as discussed below.

#### 4.2.3 European Free Trade Association Ministerial Group

In the light of the entrusted mandate of the GATT EMIT Group and the inactive role which it had played in reviewing trade and environmental issues, in December 1990, the Ministerial Meeting of the European Free Trade Association Ministerial Group called upon the GATT Contracting parties to: (a) conduct a study on the relationships between environmental policies and the rules of the multilateral trading system; (b) examine the status of preparatory work for the 1992 UNCED, and the possibility of submitting a GATT contribution to that Conference; and (c) convene in 1991, the GATT Working Group on EMIT under an updated mandate, in order to provide contracting parties with a forum for these issues.<sup>30</sup> By so doing, the Ministerial Meeting hoped that developing countries and developed ones would be more sufficiently equipped to deal with environmental issues in global trade, and also, that trade and the environment would be mutually supportive. This request was not met with any reaction. However, owing to the importance which they attached to this issue, the Group pressed further with their request. In February 1991, they made another request, voicing the same concerns, to the then Director-General of GATT.<sup>31</sup>

After an initial period of skepticism among contracting parties, a meeting of this nature was convened, under Ambassador R. Ricupero, the then Ambassador of Brazil to the WTO.<sup>32</sup> The GATT EMIT Group was called upon to examine and analyse the following three items in the trade and environment agenda:

(a) trade provisions contained in existing multilateral environmental agreements, for example, the Washington Convention on International Trade in Endangered Species and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal) vis-à-vis GATT principles and provisions;

- (b) multilateral transparency of national environmental regulations likely to have trade effects; and
- (c) trade effects of packaging and labeling requirements aimed at protecting the environment".<sup>33</sup>

As a result of these workings of the European Free Trade Association Ministerial Group, the EMIT Group met from November 1991 to January 1994. The discussions of this Group enabled delegates to get enlightened on the subject matter of trade and environment.<sup>34</sup>

Among the conclusions of this meeting as presented by the Chairman were the following: "Discussions should remain within the mandate of the Group and GATT's competence, namely the trade-related aspects of environment policies which could result in significant trade effects for GATT contracting parties. ... Also important was the considerable extent to which the GATT rules already accommodated trade measures used to protect national environmental resources. ... an open, secure and non-discriminatory trading system underwritten by the GATT rules and disciplines could facilitate environmental policy-making and environmental conservation and protection by helping to encourage more efficient resource allocation and to generate real income growth."<sup>35</sup>

Another very important outcome of this meeting is that it took into consideration, the fact that, contrary to the apprehensions of WTO critics, the WTO does not seek to encroach on environmental work, which is sufficiently being dealt with, by UNEP, and other relevant environmental bodies. By dealing with trade and environmental issues, this mechanism for regulating international trade intends to dwell on only environmentally-related aspects of trade alone, and not environmental issues in general. Hence, it was reported to the 48<sup>th</sup> session of the Contracting parties *inter-alia*, that: "... In respect neither of its vocation nor of its competence was the GATT equipped to become involved in the task of reviewing national environmental priorities, setting environmental standards or developing global policies on the environment. Nevertheless, the multilateral trading system did have a central role to play in supporting an open international economic system and fostering economic growth and sustainable development, especially in the developing countries, to help address the problems of environmental degradation and the over-exploitation of natural resources".<sup>36</sup>

Another result of the workings of the European Free Trade Association Ministerial Group was a Draft Decision on Products Banned or Severely Restricted in the Domestic Market, adopted by the GATT EMIT Group. Nevertheless, this decision was not finalised. In these circumstances, it was submitted to the proposed WTO in its draft form and incorporated into the work programme of the Committee on Trade and Environment. Together with the adoption of the Final Act of the Uruguay Round on 15 November 1993, the Trade Negotiations Committee resolved to create a work programme on 'trade and environment'. The considerations made by this committee were reiterated in the formal ministerial Decision on Trade and Environment, adopted on the occasion of the signing of the Final Act at Marrakesh in April 1994. This decision enabled the creation of the WTO's Committee on Trade and Environment, and established its envisioned working programme.<sup>37</sup>

#### **4.3 Environmentally-Related Aspects of World Trade Organization Provisions**

This dissertation, as it deals in part with the trade and environment debate within the broader context in the global sphere, at this point, examines the relevance of the environment in the trading agreements of the newly established regime. Though trade and environment were not originally included in the Uruguay Round negotiations as already indicated, the following green provisions of the WTO demonstrates the great extent to which environmental concerns have come to dominate the international trading agenda<sup>38</sup> and how this has contributed to the trade and environment debate.

##### **4.3.1 Preamble to the WTO Agreement**

This specifically makes references to the objective of sustainable development and to the need to protect and preserve the environment:

"Recognizing that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and enhance the means for doing so in a manner

consistent with their respective needs and concerns at different levels of economic development...”<sup>39</sup>

Though it does not provide any specific right or obligation to countries, it provides them with guidance, that is, the necessity to conduct their developmental goals, with due regard of the need for environmental protection. In this regard, sustainable development is a guiding principle in WTO texts and case law. The WTO’s dedication to balancing trade and environmental objectives in its workings, is evident in this respect.<sup>40</sup>

#### 4.3.2 GATT/WTO Article XX

This article permits member states to deviate from otherwise normal GATT disciplines in certain situations by promoting policies which affect trade in goods for the purpose of protecting human, animal or plant life or health care<sup>41</sup> and policies which relate to the conservation of exhaustible natural resources.<sup>42</sup> Additionally, such policies are permissible if they are geared towards addressing local or world-wide short supply. In all these cases, such measures should be made effective in conjunction with restrictions on domestic production or consumption.<sup>43</sup> In discussing the relevance and interpretations of these stipulations of GATT Article XX as regards their applicability to imported goods and how they can encourage green trade without necessarily hampering the freedom and fairness of such trade, writers such as Charnovitz,<sup>44</sup> Joseph (albeit specifically from EU viewpoints),<sup>45</sup> Neumayer<sup>46</sup> and Ward<sup>47</sup> have classified certain important emerging trends, which could be borrowed and adjusted for the model law of this thesis:

- (a) Discrimination: The measures highlighted above in Articles XX (b), (g) and (j) should be imposed in a manner so as to avoid “arbitrary or unjustifiable discrimination between countries where the same conditions prevail” and could be said to reiterate the same philosophy in the *US Petroleum Case*.<sup>48</sup> For present purposes, a tax should be the same for both imported and locally-produced toxic waste, where such wastes are alike.
- (b) Disguised Restriction: This element is one of the main concerns of developing countries, as highlighted in Chapter 3.<sup>49</sup> Basically, it prohibits countries from imposing protectionist barriers in a rather subtle and surreptitious manner, namely, for the supposed

enhancement of environmental health of the importing country, while in reality, this may be for economic protection. For Charnovitz, this element has been given a somewhat less stricter interpretation within the GATT.<sup>50</sup> Consequently, in the 1982 case of *US-Prohibition of Imports of Tuna and Tuna Products from Canada*,<sup>51</sup> the GATT Panel held that owing to the fact that US restrictions on tuna products from Canada were taken as a trade measure and publicly announced as such, they should not be deemed to be disguised. In the 1983 case of *US-Imports of Certain Automotive Spring Assemblies*,<sup>52</sup> the GATT Panel held that the application of the trade measure and not the trade measure itself, is what should be examined. In the present case, the order in question was published in the "Federal Register" and based on a valid patent whose infringement had been clearly established. Consequently, Canada could not establish a successful claim of "disguised restriction". In this second case, it may be submitted that it is also difficult to envisage a situation where a disguisedly restrictive measure is deemed to be non-restrictive, for the simple reason that it was made known to the public. Such a measure may be in fact implemented to protect local manufacturers who may then be pleased, whether or not it is publicly made known.<sup>53</sup>

The recommended measures in (a) under Discrimination, especially the incorporation of scientific evidence, could also lead to the conclusion that this requirement for the avoidance of disguised restriction, has been sufficiently met.

- (c) The Necessity/Proportionality Test: The main aim of the GATT/WTO Panels when generally applying the necessity test in disputes, is to ascertain whether an alternative and more GATT-compliant trade measure was really relevant to the attainment of certain environmental objectives. In other words, was the imposition of such a measure not far-fetched/remotely linked to the environmental aims to be achieved? This test was applied in the *Thailand* case, discussed in Chapter 4.4.7.<sup>54</sup>

Of vital importance to the necessity/proportionality test is Article XX(d) of GATT which exempts measures necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, including those relating

to...the protection of patents, trade marks and copyrights, and the prevention of deceptive practices.<sup>55</sup>

From this perspective, if substances such as PBBs, PCBs and medical waste, for the reasons of their sheer toxicity are being rejected, as recommended for the three case study countries of this thesis, it seems reasonable to base this on incidents such as Koko, discussed in Question 2 of the Research Findings, under answers provided by Ghana's MEST. Similarly, if substances such as arsenic are being rejected, as in the Sasolberg case discussed in Chapter 5.4.3(d), such a measure pertaining to the rejection of such particular imports is based on the intimate link between the poisonous effects of arsenic and the health of the ecological base and human being. All the substances being rejected, as annexed to the model treaty and law of this thesis, are essential as they directly affect the health of human beings and their environment.

- (d) Relevance to Environmental Conservation: The relevant GATT exception clause, Article XX(g), permits exceptions which are related to the conservation of exhaustible natural resources. In the 1988 case of *Canada-Measures Affecting Exports of Unprocessed Herring and Salmon*,<sup>56</sup> this requirement was interpreted as making it imperative that a trade restrictive measure had to be "primarily aimed at" such conservation.

This test was interpreted as requiring a trade restrictive measure to be adopted by governments only when the benefits to conservation are worth the costs involved, as enunciated somewhat hypothetically by the GATT Panel in the 1989 case of *Canada's Landing Requirement for Pacific Coast Salmon and Herring*.<sup>57</sup> In the view of the Panel, Canada would not have employed the landing requirement if its own nationals had to bear the full costs of that measure. Hence, this requirement fell short of the "primarily aimed at" conservation requirement.<sup>58</sup>

In the application of this principle, the interests of exporting countries have however been protected. The need for this was emphasised in *the US Auto Taxes Case*<sup>59</sup> where it was held that in circumstances where the exporting countries' interests are threatened or affected, a measure which brings about resource conservation primarily at the expense of

foreign products cannot be invoked, as this exception requires a balanced and fair treatment which requires that domestic producers be subject to the same measures as well. The balancing act is of vital importance here then. So that though exporting countries were unsuccessful in their claim against US import measures aimed at conservation in the 1998 *Shrimp-Turtle* Case discussed in Chapter 4.4.8, exporting countries' interests were promoted in this case as follows: "...the task of interpreting and applying the chapeau is... essentially the delicate one of locating and marking out a line of equilibrium between the right of a Member to invoke an exception under Article XX and the rights of the other Members under varying substantive provisions such as Article XI of the GATT 1994, so that neither of the competing rights will cancel out the other and thereby distort and nullify or impair the balance of rights and obligations constructed by the Members themselves in that Agreement".<sup>60</sup>

Regarding the thematic focus of this thesis, this requirement would mean that when a particular hazardous substance is banned from being traded in, the environmental benefits, when balanced against the benefits which would have been earned from trading in that particular commodity, should greatly outweigh the latter. In effect, the rejected substances should contaminate human or environmental health, through depletion of marine, atmospheric and agrarian resources, for example, as occurred in the *Thor Chemicals* Case, discussed in Chapter 5.4.2. All the substances which are rejected as stipulated in Annex 4, meet this requirement, on the basis of scientific proof, and are better banned than being traded in for financial gains.

- (e) Extraterritoriality: This requirement could, to a large extent, be linked to the extraterritoriality principle, which in this case, requires states to respect one another's sovereignty when implementing environmental measures. GATT/WTO cases such as *Shrimp-Turtle*, discussed in Chapter 4.4.8, seem to suggest that a country can promote a trade measure which could be used to protect foreign life or health, despite the views held by writers such as Jackson, Owen Saunders and Gland to the effect that trade measures should aim at domestic and not foreign health.<sup>61</sup> However, Schoenbaum, while discussing the doctrine of opposability in international law, suggests that such



extraterritorial measures may be legally permissible, in the face of emerging norms, which are of great priority in international law.<sup>62</sup>

As such, it is becoming difficult to distinguish between how and when measures should be imposed to protect domestic resources on the one hand and foreign health on the other, as indicated earlier in this Chapter. For instance, when compared with the *Tuna-Dolphin Case*, discussed in Chapter 4.4.1, it is not very easy to distinguish between those measures which are applicable to foreign health and those which are applicable to domestic health. As environmental treaties are usually based on international co-operation, this sort of multilateral approach must be adopted, in order to facilitate the implementation of policies which protect domestic health. However, when there has been the prior establishment of an international or multilateral environmental treaty, as in the *Shrimp-Turtle Case*, it then becomes reasonable that creative unilateralism is promoted.<sup>63</sup> To simplify matters, for purposes of this thesis, the rejection of the proposed chemicals is done with the view of protecting the environmental health and welfare not of the exporting country, but of the importing countries, that is, Ghana, South Africa and Côte d'Ivoire. Furthermore, this is also done with a view of not using one's territory in a way so as to infringe on the sovereignty of another nation, and therefore, respecting doctrines such as those of good neighbourliness and *sic utere tuo ut alienum non laedas*.<sup>64</sup>

- (f) Product versus Process Issue/Processing Standards: This has been discussed extensively in Chapter 3.5.2, and could lead to protectionism on the part of the importing country. On the one hand, this may entail a violation of the extraterritoriality principle; on the other hand, certain pollution products, for instance, vehicles, may require the ISO 14000 environmental component, *inter-alia*. This was the main issue in the *Tuna-Dolphin Case*, which held that the US was not justified in seeking to ensure that Mexico imports tuna which was caught with purse seine nets in a dolphin-conservative manner.<sup>65</sup>

This requirement, which is still questioned in instances involving labelling requirements, packaging laws and recycling content satisfaction, has been elucidated in the previous Chapter, within the context of the adverse impacts which environmental interests could

possibly have on trading practices. They are recommended for the three case study countries, simply to avoid situations such as the Ghana/Tokyo Kennedy Round scenario, where chemicals are imported, with labelling in a language which can neither be read nor comprehended in the official language of the importing country, only to be discovered later that they are obsolete.<sup>66</sup> The challenge then becomes how to re-export these obsolete substances which can also not be used at home. They then end up becoming stockpiled. Consequently, as far as the imports and exports of toxic substances in the course of free trade are concerned, ecolabelling measures could be permissible for the three case study countries.

#### 4.3.3 The New Agreement on Technical Barriers to Trade

Alternatively termed, the “Standards Code”, this Agreement was adopted in 1979 to rectify the somewhat ambiguous language of GATT Article XX, by legitimising governmental policy which is aimed at environmental protection. As indicated in Chapter 2.3.2(a), the aim of this code is to ensure transparency in international trade by requiring that states’ adoption of technical regulations or standards relating to, *inter-alia*, health, safety, consumer and environmental protection do not create unnecessary barriers to trade.<sup>67</sup> In this regard, this Code and those in Chapters 4.3.4 to 4.3.8 could be said to amount to non-tariff barriers which are measures such as product standards imposed by governments on imported goods to reduce the quantity of these goods to a desired level. As indicated in Chapter 2.1.1, these could be differentiated from tariff barriers which are taxes levied on imported goods and therefore affect the prices of these goods. This Code, for instance, states categorically that “Recognizing that no country should be prevented from taking measures necessary to ensure the quality of its exports or for the protection of human, animal or plant life or health of the environment, or the prevention of deceptive practices, ...”,<sup>68</sup> states can introduce measures which serve as technical barriers to trade, with the aim of protecting the environment.

Furthermore, this Agreement, *inter-alia*, stipulates that parties must not prepare, adopt, or apply technical regulations with the intent or effect of creating unnecessary obstacles to trade. To attain this objective, a party’s trade measure shall not be unnecessarily trade restrictive, in order to fulfill a “legitimate objective” such as the protection of human health or safety, animal or plant life or health or the environment.<sup>69</sup> Hence, GATT/WTO

members, under this Code, ought to notify other members of proposed technical standards, laws, rules, and regulations, and to provide the other parties an opportunity to comment on the proposed measure. Concerning the unnecessary use of technical regulations to create impediments in trade, nations have substantive commitments under this Code. These provisions have never really been tested though.<sup>70</sup>

While linking these provisions of the code to the requirements of non-discrimination and the avoidance of disguised restriction under Article XX as indicated above, it could be said that these provisions have been met by the model treaty and law, in their Annexes, and under scientific evidence in Chapter 6, concerning policy recommendation.

#### 4.3.4 The Agreement on the Application of Sanitary and Phytosanitary Measures

This Agreement explicitly enhances environmental objectives by establishing many rules which recognise the need by national governments, to ensure that certain sanitary and phytosanitary inspections and requirements are fulfilled, in order to protect human, animal, plant life, health and hygiene, thereby creating barriers to trade. This, it does by advocating that:

“...in cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information, including that from the relevant international organizations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective (sic!) assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time”.<sup>71</sup>

While reiterating the precautionary principle, recommendations have been made in Chapter 3.5.2(b), for the possibility of the three case study countries rejection of imports of hazardous waste substances, in marginal situations, even if scientific evidence is not fully established. This is very important, for example, in the case of Ghana's rejection of so-called factory waste from Italy, when it was subsequently discovered that these substances were actually arsenic and poison.<sup>72</sup>

#### 4.3.5 The Agreement on Agriculture

This exempts direct payments and cuts in subsidies under environmental programmes from WTO Member commitments, to reduce domestic support for agricultural production, subject to certain conditions.<sup>73</sup>

#### 4.3.6 The Agreement on Subsidies and Countervailing Measures

This agreement treats as a non-actionable subsidy, government assistance to industry covering up to 20 per cent of the cost of adapting existing facilities to new environmental legislation.<sup>74</sup> This lesson could be applied to the regulation of toxic waste trade.

#### 4.3.7 The General Agreement of Trade in Services

Under this Agreement, a member country will be legally entitled to adopt exceptions in services trade whenever such measures are vital for the protection of human, animal or plant life or health.<sup>75</sup> This Agreement further recognises that measures of general application to trade in services, which includes regulation to protect the environment, will continue to apply.<sup>76</sup> It further extends to recognition requirements related to authorisation, licensing or certification of service suppliers, and will permit harmonization or mutual recognition of standards or criteria reflecting more stringent requirements related to environmental protection.<sup>77</sup>

Accordingly, it could be recommended that even though the three case study countries are in need of computers, mobile phones and other equipment during services trade, for education, development and the enhancement of their technological sophistication, due caution must be given to the very type of computers, software and other equipment which are imported herein. If such substances are obsolete, the US-China/Mexico, scenario for instance, must be avoided, where obsolete and harmful computers were dumped from the US into these two countries. This led to environmental contamination in parts of China and Mexico.<sup>78</sup> In the case of mobile phones, the timely efforts of the Basel Secretariat and UNEP, such as the mobile phone initiative discussed in Chapter 3.4.1(f), for example, is commendable in this light and could perhaps be ultimately extended to cover important areas such as computers, which is a vital service commodity in free trade, especially in contemporary times, within the territories of the three case study countries. Through such instances, the GATS, in

liberalising sustainable trade in services, could be seen as making significant contributions to sustainable development and environmental services, as discussed in Chapters 2.7.1(a) and 3.5.1(b). Through this, it further enables governments to increase their environmental standards.

#### 4.3.8 Agreement on Trade-Related Aspects of Intellectual Property Rights

In terms of this Agreement, countries are entitled, though not necessarily enjoined, to “exclude from patentability inventions, plants and animals other than microorganisms and biological processes for the production of plants or animals other than non-biological and microbiological processes”.<sup>79</sup> Hence, the workings of this Agreement and the Biodiversity Convention could be seen as being linked, to a large extent, as the Convention uses intellectual and other property rights protections as a tool for attaining the environmental goal of protecting biodiversity.<sup>80</sup>

Through a strict adherence to the principles enunciated in the abovementioned agreements, the WTO hopes to conduct trade in a transparent manner, in order to achieve a truly equitable, non-discriminatory trading system from which all the world’s nations will benefit. This is important, because such sustainable trade, as emphasised in this thesis, significantly contributes to the conservation of environmental resources and the promotion of sustainable development, at the national and international levels.

#### 4.3.9 WTO Committee on Trade and Environment

While working to accomplish its aim of improving linkages between trade and environmental concerns as stipulated within its mandate, this Committee has since its inception, convened a series of meetings and workshops.<sup>81</sup> In conducting these meetings, two different approaches have been adopted to interpreting the terms of the mandate of the Committee. According to the first approach which is endorsed by the Committee in Geneva, there is the scope to clarify this mandate, define its terms and delimit its parameters. For the second approach, an examination needs to be made of specific obligations in MEAs and relevant WTO rules at stake and identify concrete problems. If there are no problems, then there is no point in conducting further negotiations. Most WTO member states adopt the

second approach. Both approaches are conducted in parallel in the special sessions of the Committee.<sup>82</sup>

In conformity with its adherence to the first approach, the Committee, at the first WTO Ministerial Meeting in Singapore, in 1996, stressed the need to depart from any policy contradiction between trade and the environment. This, it indicated, is really about ensuring the mutual relationship between trade and environment, and especially encourages the protection of environmental concerns within the trading system, while particularly avoiding discrimination. From this viewpoint, the multilateral trading system has the capacity to integrate environmental considerations and promote its contributions to sustainable development, without necessarily undermining its open, equitable and non-discriminatory character.<sup>83</sup> Similarly, the second WTO Ministerial Meeting, held in Geneva in 1998, reinforced this view.<sup>84</sup> The third WTO meeting, held in Seattle, was to a large extent, not successful and consequently, much was not accomplished in terms of reconciling the trade and environment debate.<sup>85</sup>

Further decisions of these meetings and workshops, as well as their usefulness in balancing trade and environmental concerns, are evident from the Doha Ministerial Declaration, which was a result of the fourth WTO Ministerial Conference in Doha, Qatar, in November 2001. For instance, this Declaration reaffirms the commitment of the international community to attaining the ideals of sustainable commitment, as reiterated in the Marrakech Agreement and acknowledges efforts by Member states to voluntarily conduct environmental assessments of trade policies. This Declaration further recognizes the stipulations of Article XX, discussed above, and strongly encourages collaborative work between the WTO on the one hand, and UNEP and other international environmental organizations, on the other, especially in the lead-up to the WSSD of 2002.<sup>86</sup>

The WTO Regional Seminar on Trade and Environment for Anglophone African countries, convened in Cape Town, South Africa, from 19-21 May 2003 and the WTO Regional Seminar on Trade and Environment for Francophone African countries in Tunis, Tunisia, in October 2002, are further instances when the workings of the WTO could be said to balance trade and environmental objectives and provide technical assistance as well as capacity-

building to these countries in this respect. At these workshops, training and insights on the development of the Committee and this debate, as part of the WTO mechanism, were given to national and international experts from African countries ministries. Officials from the SADC and NEPAD were also present, for the same purposes.<sup>87</sup>

It may then be suggested that such WTO environmentally-oriented trade workshops, be also extended to include officials from the AU and other African regional mechanisms such as ECOWAS and EAC, which work alongside each other on these issues. There should be more monitoring and impact assessment in this regard. What is being essentially suggested here is that these officers be also empowered to make presentations to the Committee, to share information with each other, motivate each other, express how such training workshops impacts trade and environmental concerns at the national level, what successes are encountered and what obstacles lie in store. By so doing, all these are reported back to Geneva, for accurate assessment on how developing countries are balancing trade and environmental considerations in their state practice and policy.

Another important recommendation is that instead of conducting training at the national level, since legal expertise abounds in this international trading regime which is the international mechanism for undertaking this assignment, it seems appropriate that such workshops be convened on a regional basis, at least, every once in a year. In order to ensure that lessons have been learned and experiences have been shared, such meetings may be also held with groups of African countries, as is currently the case. This enables these countries to learn from each other and avoid mistakes committed by others, in their pursuit of trade and environmental objectives. Such issues could also be included in the WTO curricula at its Nairobi and Casablanca Institutes, so that participants benefit from it, not just once a year, but on an on-going basis.

Zen Makuch advocates the establishment of an Intergovernmental Panel on Trade and Environment, to provide the Committee on Trade and Environment with background information and analysis which is needed to formulate effective linkages. This Panel is to exist for as long as the Committee on Trade and Environment exists. The Panel is to consist of representatives from international organizations and national governments, including

external affairs departments and those dealing with environmental protection and sustainable development. According to this recommendation, the agenda of the Panel will include areas such as eco-labelling.<sup>88</sup> To this proposal, it may be suggested that this Panel could comprise the same experts who are nominated to participate in the African Regional Workshops as well as other relevant sessions of the WTO.

Further working sessions of the Committee which focused on an update of its tasks as from Doha, were held in February, July and October 2003.<sup>89</sup> This update necessarily included the two workshops in Cape Town and Tunis, discussed above, as well as collaborative workings of the Committee with the Basel Convention secretariat, which illustrate the simultaneous implementation of trade and environmental objectives.

The next WTO Ministerial Meeting in Cancún, Mexico, in September 2003, acknowledged *inter-alia*, further capacity-building activities of the Committee, as well as other agencies such as UNEP and UNCTAD, in developing countries and worldwide.<sup>90</sup> However, it may be suggested that such meetings and reports also lucidly document the extent and exact way in which these meetings have benefited these developing countries, and the remaining challenges which lie ahead.

From the above, the Committee on Trade and Environment can be commended for the measures which it implements, in order to harmonise the rules of international trade and environmental protection.

#### **4.4 WTO Jurisprudence (With Extractable Principles)**

##### **4.4.1 *Tuna-Dolphin* Cases I and II<sup>91</sup>**

This case, handled under the old GATT dispute settlement procedure, has a lot of significant implications for international trade and international environmental law. Compounded with the efforts of the European Ministers discussed in Chapter 4.2.3, it is one of the root causes of the trade and environment debate. This case was also responsible for the reactivation of the work of the GATT EMIT Working Group. *Tuna-Dolphin* enunciated some fundamental principles in the international trade and environment debate, namely: “(a) ...can one country tell another what its environmental regulations should be? and (b) do trade rules permit



action to be taken against the *method* used to produce goods, rather than the *quality* of the goods themselves?,<sup>92</sup> So that, even though it was unadopted by the GATT Panel, it is from this perspective, very essential for discussions at this point of the thesis.

### Facts

Located in the Eastern tropical areas of the Pacific Ocean are yellowfin tuna which often swim underneath schools of dolphins. Harvesting tuna with a particular kind of fishing net, the purse seine nets, results in trapping dolphins into the nets. Consequently, these dolphins die unless they are released. So that, using purse seine nets for yellowfin tuna fishing in this part of the Pacific Ocean reduces the dolphin population there.

Against this backdrop, the US enacted its Marine Mammal Protection Act in 1972 to establish dolphin protection standards for the domestic American fishing fleet and for all countries whose fishing boats catch yellowfin tuna in that part of the Pacific ocean. This Act authorised the US to reject all tuna imports from any tuna exporting countries to the US, which do not meet its dolphin protection requirements.

In 1988, Earth Island Institute, a California environmental group, believing that dolphins in the Eastern tropical Pacific were being killed by Mexican fishermen in contravention of this law, brought an action in the US federal court to enforce the congressional mandate and prohibit the US from accepting such imports from Mexico. The federal court upheld this action that the US government should impose bans on imports of Mexican tuna, pursuant to the requirements of the Marine Mammal Protection Act in 1972.

Based on the reasoning that this ruling of the US federal court had contravened its guaranteed free trade rights under the GATT to sell tuna in the US, Mexico challenged the US ban in 1991, by requesting a GATT dispute settlement panel to adjudicate the matter. The GATT panel concluded *inter-alia* that:

-The US ban on imports of Mexican tuna inappropriately discriminated against the imported product based on production practices that were not legitimate as a focus of US regulation. This violated the national treatment requirement of GATT Article III.

-The US claim of justification under GATT XX(b) for actions necessary to protect human or animal life was inapplicable for the reason that this exception does not cover harms occurring outside the jurisdiction imposing the trade measure. This has often been referred to as the “extraterritoriality principle”, and “unilateral multilateralism”,<sup>93</sup> that is to say, “...whether countries have the right to unilaterally impose trade restrictions aimed at environmental protection outside their own jurisdiction.”<sup>94</sup>

-The US’ claim of justification under GATT Article XX (g) for the conservation of exhaustible natural resources could not be unilaterally pursued outside the national context.

--Owing to the fact that the US “dolphin safe” tuna labelling programme had no discriminatory effects, this requirement was non-discriminatory.

Because Mexico declined to obtain the tuna-dolphin panel report “adopted” by the GATT Council and thereby push its victory in this case, in 1994, the European Union brought a further GATT challenge. This has often been referred to as the *Tuna-Dolphin II* Case. In this second *Tuna-Dolphin* Case, the EU opposed the “secondary embargo” imposed under the aforementioned Marine Mammal Protection Act on all countries that trade in tuna with Mexico. The facts of this second case are essentially similar to those in the first case. The decision of the second tuna-dolphin panel again concluded that the US embargo contravenes GATT rules. It was based much more on the solid ground of the unilateral nature of the US trade action.

It is noteworthy that the three-member panel’s findings were not adopted by the GATT Council. Hence, strictly speaking, under pre-Uruguay Round GATT rules, this case technically has no precedential value. Its importance however lies in the fact that it demonstrates the position of the international trading regime regarding extraterritoriality and also, the fact that between 1947 when the GATT was set up and 1995 when the WTO was created, environmental considerations and trade were not as important a priority in many spheres including international trade, in comparison with today. This has been stressed in

Chapter 2.4 when discussing contemporary trends in international trade law, mainly, the twin objectives of pursuing free trade, alongside achieving the goal of sustainable development.

Regarding these trends, it can be seen that the ruling in the *Tuna-Dolphin* Case has somehow been different from certain WTO cases such as those discussed in Chapter 4.3. With respect to these cases, Sands concludes that “a trade restriction whose environmental justification was somewhat questionable, was declared compatible with the GATT, whereas in the *Tuna-Dolphin* Case, a trade restriction whose environmental justification was certainly stronger, was deemed incompatible with the GATT”.<sup>95</sup>

Furthermore, even if this case was not adopted by the GATT panel, its basic theme could be perceived to have been reinforced in the Rio Declaration which provides *inter-alia*, that: “Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing countries should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on international consensus”.<sup>96</sup>

The importance of these watershed *Tuna-Dolphin* Cases is thus evident here. It gave a lot of importance to the trade and environment debate within the international trading community. Furthermore, it raised the awareness that unless the environment was given due consideration in international trade, with clear indications as to when and under what circumstances environmental exceptions could justifiably be invoked and given priority over free trade, nations could resort to environmental protection as a rather fine excuse for protectionism.

#### 4.4.2 The Contribution of NAFTA to Trade and Environment in the WTO

In addition to the above, the role of the NAFTA in highlighting the trade and environment debate must also be underscored. When the NAFTA was adopted in September 1993, the North American Agreement on Environmental Cooperation (NAAEC) was also implemented as the environmental component of NAFTA. The main aim of the NAAEC

was to promote sustainable development through mutually supportive environmental and economic policies within member states. As indicated earlier and in subsequent portions of this thesis, NAFTA's Commission for Environmental Cooperation (CEC) was created among the three signatories to preserve, conserve and protect the environment, through increased cooperation amongst NAFTA member states and public participation.<sup>97</sup> As such, NAFTA also gave rise to the trade and environment debate, as this was the first trade agreement to incorporate green provisions.<sup>98</sup>

#### 4.4.3 Rulings of WTO Appellate Body on French Ban of Carcinogenic Asbestos<sup>99</sup>

As discussed in Chapter 2.4, this case concerned a WTO ruling in March 2001, which upheld a French ban on imports of carcinogenic asbestos from Canada. This case dated back to 1998. Upon finding that toxic asbestos was not the same as safer materials, the WTO Appellate Body opined that carcinogenic asbestos is not the same as its substitutes. Consequently, the French ban on the importation of these substances into its territory during the course of international trade was held as not violating free market laws.

The Appellate Body's finding is consistent with arguments made by the NGOs in an *amicus curiae* (friends of the court) submission made to the WTO in this case. In this sense, it shows how trade and environmental concerns can be synthesised to attain the objective of sustainable development. From this perspective, it could be seen that such a ruling also facilitates the workings of an international environmental mechanism such as the Basel Secretariat, which seeks observe status in the WTO sessions dealing with these issues. As indicated in Chapter 3, more tasks can also be entrusted to Basel to deal with such issues, under a strict and legally accountable regime for offenders, to deal with trade and environment disputes, especially, as they relate to toxic waste trade.<sup>100</sup>

#### 4.4.4 Sri Lanka's Ban of Genetically Modified Organisms<sup>101</sup>

This case concerned Sri Lanka's ban of the utilisation of Genetically Modified Organisms in food and agriculture. These precautionary measures were based on empirical studies revealing the detrimental effects which Genetically Modified Organisms could have on biodiversity, health and potential export losses, given the rising public demand for locating

the origins of products and labelling requirements of food. The measures were met with opposition from US corporations and Congress, which then threatened WTO action against Sri Lanka. This developing country then withdrew these precautionary policies by suspending its law on Genetically Modified Organisms, within the next few weeks.<sup>102</sup>

However, as the UNEP has now indicated that important guidelines have been implemented for the safe handling, processing and use of Genetically Modified Organisms, it may be suggested that these guidelines be taken into consideration when importing prospective substances in this regard.<sup>103</sup> The incorporation of environmental concerns into trading regimes here also demonstrates a way in which trade and environment can be effectively reconciled.

With regard to setting up a model law on trade in toxic waste, the proposal in Chapters 3.5.1(a), 2.7.1(c) and 6, that Basel and WHO guidelines serve as a useful guide for the three case study countries' importation or exportation bans on toxic waste, might suffice in this respect unless of course, other sound environmental principles can be found for importing a particular kind of toxic waste.

#### 4.4.5 *WTO Beef-Hormone Ruling*<sup>104</sup>

In this case which is discussed in Chapter 2.3.2(v), the EU in 1989 banned the importation of beef produced with hormones. These included the five steroid hormones of oestradiol, progesterone, testosterone, zeranol and trenbolon - and an animal growth specific hormone and somatotropin. This led to extensive scientific hearings in the WTO dispute settlement body and scientific evidence there.

The WTO Appellate Body extensively applied the general principles of international law, specifically, *in dubio mitus* (similar to the margin of appreciation doctrine in human rights law), in interpreting the scope of the EU's discretion to apply its own health and environment standards, even though they were higher than international standards. The effect of this was a deference test and one which is prudent for the WTO to adopt. The Appellate body also embarked on a review of the precautionary principle. Though this did not end in any authoritative ruling on its status in international law, this principle was

recognised as effective as it was incorporated in Article 5 of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures and had general application in the trade regime. In a ruling by the WTO Dispute Settlement Body, the EU ban on the import of US and Canada's hormone treated beef was tantamount to an unfair trade barrier. According to the recommendation of the Dispute Settlement Body, the EU was to remove the import ban with immediate effect. Alternatively, it was to pay compensation to the US and Canada. This ruling was subsequently met with an appeal by the EU. The WTO continued to rule against the EU ban.

It is submitted here that the recommendation of this thesis which holds that explicit considerations be given to the environment, by spelling out the specific environmental considerations which may be set aside for banning certain specific imports, fits squarely here.<sup>105</sup> This also links to Sands' point about ambiguity concerning the guidelines for WTO rulings in disputes involving trade and environment, discussed in Chapter 4.4.1. In the absence of this, it becomes rather difficult to predict the exact situations in which substances should be rejected for genuine environmental reasons and when not. The recommendation here is therefore very necessary, even at national levels and for the proposed law of this thesis.

#### 4.4.6 *US-Standards for Reformulated and Conventional Gasoline*<sup>106</sup>

The US Superfund Act of 1986 provided for excise taxes on imported petroleum and petroleum-produced products. Canada, Mexico, and the European Community brought a GATT case against the United States on the grounds of higher levels of tax rates on imported than domestic petroleum and petroleum-based products, on the basis that this violated the principle of national treatment under Article III of GATT. The United States argued that the resulting differential was competitively insignificant and that higher taxes were for genuine environmental goals, that is, the cleaning up of hazardous waste sites. Indeed, with due consideration to events in the US such as the Love Canal tragedy discussed in Chapters 1.4 and 2.7.2(a), such environmental objectives may be said to have been genuine. However, the main point here was the imposition of more onerous taxes on imported products than local goods, which were of the same nature.

In the opinion of the panel, the purpose of levying taxes was irrelevant to the GATT consistency of the tax. Furthermore, all taxes must meet national treatment requirements. On ascertaining whether the Superfund Act levies on petroleum and petroleum products were higher for imported products as compared to locally produced goods, the panel discovered that the tax on imported petroleum was greater and thus unacceptable than that on locally produced petroleum. Imported and exported petroleum was also comparable, meaning that the Article III requirement of the GATT was acceptable. The US refined its law accordingly, to be consistent with this ruling.

From this case, the lesson for the suggested law would be that while imposing taxes on imports of petroleum and other substances with toxic waste, such as lead scrape or hazardous chemicals for agricultural purposes, such taxes should be the same as both locally produced and foreign goods, where these goods are the same. Accordingly, the amount of taxes levied on imports and recycling, in relation to the polluter pays principle and punitive measures, for attaining environmental considerations, should be the same for both imports and exports, during the course of free trade.

#### 4.4.7 *Thailand-Restrictions on Importation of and Internal Taxes on Cigarettes*<sup>107</sup>

In its ruling, the GATT Panel interpreted Article XX(b) within the context of the term “necessity” as requiring that no “alternative measure consistent with the General Agreement, or less consistent with it”, which the importing country could “reasonably be expected to employ”. Here, the GATT Panel found that other optional measures were reasonably available to Thailand to control the quality and quantity of cigarettes smoked. Based on this, the Panel found that Thailand’s state practice of permitting the sale of domestic cigarettes while not allowing the importation of foreign cigarettes was not “necessary” within the confines of the requirements this Article.<sup>108</sup>

The lesson for the suggested law on toxic waste would be to ensure that when a substance is rejected, there are no other available measures which could be adopted. For instance, the toxic chemicals and waste to be rejected are banned on the grounds of non-existence of alternative measures for the protection of health. In circumstances where alternative measures are possible, these are adopted while necessarily incorporating environmental

guidelines. For example, for the mobile phone recycling activities as well as battery and other waste recycling activities, such activities are permissible, with the inclusion of environmental concerns. On the other hand, where there are no readily available alternative measures, imports and exports of substances such as leaded gasoline and petrol are phased out, in conformity with international standards.<sup>109</sup>

#### 4.4.8 *Shrimp-Turtle Case*<sup>110</sup>

In this case, the WTO Appellate Body established the “theoretical” possibility that if the following stringent conditions could be met, a country, in this case, the US, could unilaterally impose trade measures against other countries in order to protect the environment outside the imposing country’s jurisdiction and be justified by one of the environmental exemptions in GATT Article XX:

- (a) The US would have to engage in bilateral or multilateral negotiations with shrimp harvesting countries;<sup>111</sup>
- (b) In the event that such negotiations were unsuccessful, the US could unilaterally impose such trade restrictive measures such that:
  - (i) the variations in the conditions in different countries would be taken into consideration;<sup>112</sup>
  - (ii) all countries are accorded equal time frames as far as the “phase-in” periods are concerned;<sup>113</sup>
  - (iii) the US undertakes the same effort in transferring sea turtle harvesting technology to all relevant parties;<sup>114</sup> and that
  - (iv) there is transparency in the import certification process and this process allows countries to be granted rights of hearing and appeal against non-certification.<sup>115</sup>

Though extraterritoriality is not permissible in international law, the prioritisation of environmental concerns in trading objectives can also not be overlooked here, as can be discerned from this case. Similarly, in relation to toxic waste trade, the three case study countries can necessarily require that under exceptional environmental circumstances and the Bamako Convention, toxic waste, which are not even to be outlawed under the Bamako Convention, could still be outlawed from trading partners.<sup>116</sup>



#### **4.5 European Union Jurisprudence (With Discernible Principles)**

##### **4.5.1 *Danish Bottles*<sup>117</sup>**

With a view to reducing excess packaging waste, Denmark implemented laws regulating containers for beer, soda, lemonade, and gaseous mineral waters. According to the Danish policy, containers had to be collectable and reusable through a system of deposit and return, which effectively ruled out materials other than glass. The regulations further made it mandatory for manufacturers to utilise only container shapes and sizes which were approved by the Danish government. These bottle standards were justified as necessary to facilitate use.

Foreign companies opposed the Danish regulations because: (a) relative to plastic or metal, glass containers increased shipping weight and thus costs for foreign producers; (b) transportation costs made it more difficult for foreign producers to reclaim and refurbish containers; and (c) mandated container shapes meant less opportunity to differentiate a foreign product from a domestic one through distinctive bottle design.

The Danish Bottles regulations were challenged in the European Commission as unnecessarily disruptive to the free flow of goods, in contravention to Article 30 of the Treaty of Rome. The Community ensured that the Danish government changed its statutes, allowing alternative bottle designs for limited volumes of foreign product—3,000 hectoliters per annum, or enough for products being test-marketed. However, the Commission was not satisfied with these changes. It therefore reviewed these regulations further and requested the European Court of Justice for a ruling on the Danish regulations.

In the Court's analysis, the deposit-and-return system was legally acceptable as a necessary element of Denmark's legitimate objectives. This owed to the fact that environmental protection was a primary objective of the European Community. In so doing, it appears that the court made the purpose of the legislation the primary factor in determining the legitimacy of environmental regulations, with almost no regard to whether the means chosen to pursue a lawful environmental end distorted trade.

However, the court applied a stricter test of proportionality to the volume limit on beverages in unapproved bottle signs. It thereby rejected the Danish claims and held that mandating types of bottles would be an unnecessary disruption to trade, in proportion to the added environmental benefits.<sup>118</sup>

#### 4.5.2 *EU Waste Oils*<sup>119</sup>

On 16<sup>th</sup> June 1975, the European Community established its Directive 75/439/EEC, which made it imperative that member states establish a system of waste oil collection. This system included exclusive zones for collectors of waste oils, approval of collection firms and indemnification of collectors. The European Court of Justice was requested to ascertain the compatibility of this Directive to Article 30 of the EEC treaty which reiterated the Community's commitment to free trade.

In its ruling, the Court balanced free trade and environmental protection, by simultaneously endorsing the free market system and environmental protection. On the basis of this analysis, the Court, while upholding this Directive, opined that:

“Together with the *Cassis de Dijon* Case discussed in Chapter 4.5.3 below, this finding created a clear mandate for integrated environmental protection programmes within the Community and provided the legal basis for excepting environmental policies from the prohibitions against interference in intra-Community trade laid out in Article 30 of the EEC treaty”.<sup>120</sup>

In this vein, it could be advocated that the three case study countries and the regional integration mechanisms such as SADC and ECOWAS have a similar law. This would facilitate the workings of environmentally-oriented recycling organizations including the Battery Terminal, discussed in Chapter 5.4.5 and also, encourage others to follow-suit, in terms of other forms of waste, to be collected and recycled. This conforms to the preventive principle and ultimately, leads to the attainment of sustainable development.

#### 4.5.3 *Cassis de Dijon*<sup>121</sup>

In this case, West Germany had banned the importation of certain low-alcohol beverages, including *Cassis de Dijon* liquor, from France. The reasons for this ban were as follows: (a)

Such drinks fostered a more permissive attitude toward the consumption of alcohol and were deceptive to consumers accustomed to higher-proof products; (b) Banned imports were at a comparative advantage over domestic beverages because tax rates for liquors were tied to the percentage of alcohol they possessed.

Importers of the *Cassis de Dijon* challenged the ban as an unfair restriction on trade and sought effective redress at the European Court of Justice.

In analysing this case, the ECJ had to consider two fundamental articles of the EEC treaty on trade and environment, namely, Article 30, which reiterates the Community's commitment to free trade and Article 36, which reinforces its commitment to the protection of plant, animal and human health, *inter-alia*, and is comparable to GATT Article XX in this respect.<sup>122</sup>

In the view of the Court, the environment is not explicitly mentioned and Article 36 is meant to be given a strict interpretation. This notwithstanding, the Court concluded that the relationship between the environment on the one hand, and human, animal and plant health on the other, is sufficient to warrant the use of Article 36 exceptions for environmental purposes.

Having established this close link, the Court developed the analytical "rule of reason" approach in applying Article 36. Here, it adopted a balancing test weighing the means and the ends of an environmental measure against its impact on trade. Applying this proportionality test, the Court ruled against the ban. It held that the banned beverages posed no significant health threat to consumers. Alcoholic beverages were consumed in West Germany and less-intrusive measures such as labeling requirements, were readily available.<sup>123</sup>

This case is particularly very useful for the model law of this thesis, in providing for us, the analytical rule of reason and proportionality approach, similar to that enunciated in the *Thailand/Cigarettes* case above. It is important that after this case, the doctrine of mutual recognition/mutual trust was established amongst EEC member states.<sup>124</sup> This rule basically requires that each state must fully recognise goods which have been legitimately produced in

the territory of another member state. It is important that the rejection of substances under toxic waste trade, be based on the direct threat which such imports can have on the environment and human health. Furthermore, from this principle, it may be recommended that the environment be explicitly mentioned in GATT Article XX, the municipal systems of the three case study countries and even the EEC for that matter. This stems from the fact that the absence of such explicit considerations for instance, may lead to the abuse of such principles, under the guise of environmental protection.

#### 4.5.4. *Commission v Belgium*<sup>125</sup>

This case concerns the imposition of import restrictions by Belgium on non-toxic waste from other areas of the EU. In the opinion of the European Court of Justice, although waste was covered by Article 30 of the EC Treaty forbidding quantitative restrictions which rendered the ban illegitimate, these restrictions by the Walloon region of Belgium were deemed to be lawful owing to: (a) the lack of a Community policy which explicitly dealt with the subject; (b) the treaty principle of treating waste as close as possible to its source of generation; (c) the excessive influx of waste into this region, in the face of insufficient capacity to dispose of toxic waste.<sup>126</sup>

#### 4.6 US Executive Order 13141

In the same vein, the US, in its Executive Order 13141 affirms its commitment to a policy of careful assessment and consideration of the environmental impacts of trade agreements. To this end, this country includes environmental considerations in the development of its trade negotiating objectives. Responsible agencies will accomplish these goals through ongoing assessment and evaluation, and in some circumstances, environmental reviews.<sup>127</sup>

From this perspective, this could be in conformity with Ward's recommendation for a re-orientation of trading policy to incorporate environmental considerations, as reiterated in Chapter 2.7.1 (a) of this dissertation. The lesson for the three case study countries would obviously be a requirement that such environmental reviews and assessments be made of their trading negotiations, especially, those which touch on trading in toxic waste. This requirement could have been met under the proposal for the need for scientific evidence.

However, in situations where the effects of a given substance are not known, such environmental assessments are also necessary.

While seeking to strike a harmonious balance between implementing free trade and environmental protection objectives, this law requires that such enforcement be carried out by officials from both Trade and Environmental Sectors, and the inter-agency Trade Policy Staff Committee (TPSC), to conduct environmental reviews.<sup>128</sup> In the same vein, the environmental reviews of potential imports or exports of hazardous waste in the three case study countries should be carried out by officers from the recommended Inter-Agency Permit Scheme, which comprises, officials from both trade and environmental ministries as well as other ministries such as those of health, as indicated in Chapter 6, under Policy Guidance.

Such environmental assessments extend to trade negotiations conducted during the course of international trading agreements. Though this is commendable, due caution should be given not to impose on the less developed and least developed, in this case, as this would violate the extraterritoriality principle, discussed in Chapters 3.5.2, thereby, flaunting the national sovereignty policy. It may be suggested this also be borrowed and adapted to suit the needs of the three case study countries in their formulation of a model law, for Chapters 6 and 7. The conceivable situation here would be to empower their trading experts to also state the need for such environmental evaluations, during the course of negotiations in international trade, especially on the issue of trading in toxic waste.

The law further requires that the environmental assessments indicated be in relation to potential impacts which may result in the United States, from its trading activities and extraterritorial effects be considered only when appropriate and prudent.<sup>129</sup> This requirement could be seen in a sense to reinforce the need for the US to avoid the extraterritoriality principle through its requirement that such impacts be felt in the US. However, the fact that it gives the US the leeway to impose such assessments, in appropriate and prudent circumstances, without actually specifying what such circumstances are, makes room for some considerable degree of doubt, as to whether the US could use this provision to infringe

on the sovereignty of countries with regard to their manufacturing processes of imports, whenever possible.

The US law also stresses the link between trade and environmental objectives, indicating that trade agreements could be used as a means to attain the ideal of sustainable development. While trade could positively impact on the environment, it could also lead to the environmental degradation. Hence, the need for environmental assessments, as indicated above.

For instance, it may be advisable to specify such circumstances, by stipulating that such extraterritoriality be permissible, when there has been the establishment of a relevant prior international environmental convention, for instance, or using the precautionary principle, when the importation of certain substances may be contaminous to environmental health. This could constitute a part of the model law and policy recommendations in Chapter 6.

#### **4.7 Environmentally- Related Aspects of NAFTA Trading Regimes**

As indicated in Chapter 3.4, in July 1994, NAFTA established its Commission on Environmental Co-operation (CEC), as its main environmental mechanism which is entrusted with the responsibility of overseeing the effects of NAFTA on the environment. To this end, the CEC comprises three organs: Council, Joint Advisory Committee and Independent Secretariat.<sup>130</sup>

The fact that in July 1999, this regional trading mechanism also developed action plans for the management of dioxins, furans and hexachlorobenzene also shows how trade and environmental issues could be reconciled. As a result of this trilateral initiative, there are currently regional mechanisms for the management or phase out of PCBs, DDT, chlordane and mercury. Furthermore, member countries are now educated about the methods which are implored by their neighbours in the management of these substances.<sup>131</sup>

This ensures transparency in rejecting or accepting categories of substances, and in this sense, is essential as it also demonstrates the effective means of balancing trade and environment concerns. In the same way, African regional mechanisms such as SADC and

ECOWAS could establish such models, at regional and even national levels, within the three case study countries. For the avoidance of protectionism and for ensuring a harmonious balance between promoting trade liberalisation and environmental protection, neighbouring countries of those subject to the case studies of this thesis should be illuminated on the workings of national mechanisms which manage chemicals within their territories and share lessons learnt from the activities of the BCRC regions.

It is noteworthy that this Agreement does not just set up divisions which will work on the environmental effects of trading activities of NAFTA member states. As part of the Agreement's environmental initiative, the NAFTA has set up a dispute settlement mechanism to monitor parties' non-compliance laws. In this vein, the main approach adopted by the NAFTA is to adjudicate on disputes, stipulate monetary assessments or impose sanctions as a last resort, in the advent of parties' failure to comply with environmental and other standards, during their trading activities under the Agreement.<sup>132</sup>

Another example of the seriousness which NAFTA attaches to the environment is seen in the fact that its CEC has set up a working group to develop indicators which monitor and evaluate each party's enforcement and compliance strategies.<sup>133</sup> Of particular relevance to this study is the fact that the group has focused on indicators related to hazardous waste. This exercise would also be commendable not only for the African regional mechanisms, but also, the three case study countries, to ensure that while adhering to free trade commitments of purchasing and selling toxic waste, this is also done to promote environmental concerns. The establishment of indicators highlight the point at which such trading stops, owing to the harmfulness of certain types of toxic waste. Laws on liability should become necessarily stringent in that case, as the indicators facilitate having to hold a party accountable, when the party flaunts its responsibility in this respect.

#### **4.8 Conclusion**

Observations and recommendations in this chapter are premised on the following points:

The inception of the debate between free trade and environmental protection has been traced to 1970 and 1991, with notable international events, namely the formation of the

GATT EMIT Group in 1971; the UNCED and UNCTAD III in 1972 and the *Tuna-Dolphin* Cases of 1991 and 1994. The creation of an environmental mechanism in 1994 as an integral component of NAFTA which is vitally significant in its capacity as the first regional/international trading instrument to incorporate environmental concerns and the efforts of the European Union's Ministerial Group for the reactivation of the workings of the GATT EMIT Group are also of great importance in this regard. All these events were in turn instrumental to the eventual creation of the WTO's Committee on Trade and Environment.

These events notwithstanding, trade and environment, as highlighted in this chapter, could be seen as dating back to many decades in retrospect, that is, as far back as 1882, 1902, 1906 and other years during this era. Relevant international and municipal conventions discussed above are evidence of this long-standing relationship. However, events as at 1970 and the post-1970 years, have enabled this relationship to become more prominent and discussed in global trading and environmental matters, with a view to ensuring that a workable solution is found to reconciling the two spheres, as each of them develop alongside each other and then, intersect.

The discussion of relevant trade and environment case law, from WTO and EU jurisprudential perspectives, is testimony to the fact that the pursuit of international trading activity on the one hand, alongside the simultaneous adoption of the precautionary and preventive principles, on the other, to attain the ideal of sustainable development, is indeed a possibility which cannot be ruled out in practical terms.

Cases such as *Cassis de Dijon* reiterate the doctrine of mutual recognition and the respect for free trade, not using environmental concerns as a disguised restriction. From cases such as *WTO Carcinogenic Asbestos*, *Shrimp-Turtle* and *Belgian Waste*, it could be seen that the WTO and EU also seek to ensure that free trade is not used as a means to evade environmental responsibilities. These cases, together with environmentally-related aspects of WTO agreements such as GATS, Technical Barriers to Trade, Sanitary and Phytosanitary Measures, and TRIPs, show how international and regional trading regimes therefore aid in the workings of the environmental regimes. This is of great importance to the discussions in



this thesis, as it helps to balance trade and environmental concerns. However, for more specificity and predictability in enforcing these rules within the trade and environmental spheres especially as they pertain to toxic waste trade regulation, proposals are made at this point. These include a more explicit incorporation of environmental concerns in the form of specific stipulations as amendments, to the mandate of the Committee on Trade and Environment and Article XX clauses, for instance.

The involvement of officials from the Basel Secretariat in the sessions of the Committee on Trade and Environment not only demonstrates the commitment of the international trade and environmental regimes to harmonising these two spheres, but also, how this works in pragmatic terms. To this commendable effort of these regimes, it is also greatly advocated that officials from the Basel Convention be entrusted with more responsibility to adjudicate on toxic waste disputes. This especially holds true when free trade/environmental disputes, such as the *WTO Carcinogenic Asbestos Case* arise, as they relate to toxic waste trade regulation. While discussing this balance, Chapter 2.4 is also important as it deals with the emerging contemporary trends in international trade law and how these tie in squarely with international environmental law.

From the discussion of relevant case law emanate relevant lessons which cannot be omitted in the effective formulation of a rather balanced model law on toxic waste, which promotes free trade in toxic waste and contemporaneously enhances genuine environmental goals in Ghana, South Africa and Côte d'Ivoire. These lessons include the following:

- The necessity to impose trade policies which are non-arbitrary, justifiable and environmentally-inclined between countries where the same conditions prevail. For instance, taxes on imported products, such as petroleum, for the enhancement of environmental objectives, should be the same for locally-produced goods. This was illustrated in the *US Reformulated Gasoline Case*. For the model law, such products will include toxic waste.
- The necessity/proportionality test and its attendant analytical rule of reason approach, could be extracted from the *Cassis de Dijon* and *Thai Restrictions Cases*. Here, the main idea is to ensure that the imposition of trade restrictions has a direct relevance to the attainment of the environmental objective in question.

This also seeks to avoid discrimination. For our model law regulating toxic waste trade, the lesson learned becomes that there must be sufficient proof that the banning of a particular form of toxic waste such as carcinogenic asbestos, stems from the direct detrimental impact which such a substance, could have on human health, for instance, cancer, which in turn directly results from inhaling such a substance. Such a substance could also contaminate the ecological base. Necessary WHO and UNEP Guidelines are useful tools for establishing this test. This lesson forms a part of policy guidance and recommendation in Chapter 6, for the model law there.

Owing to the prioritisation of environmental concerns in international trade, the pattern of avoiding extraterritoriality in international law may be sometimes permissible, using the doctrine of opposability and creative unilateralism, as occurred in *Shrimp-Turtle*. This was discussed in this Chapter and in Chapter 3.5.2. Here, it is suggested that trade and environmental concerns are sought to be balanced by listing the substances which are prohibited, to avoid protectionism, or also, by listing the specific substances which are to be banned, and publishing this list.

While the *Tuna-Dolphin* Case, albeit unadopted, outlawed the product versus process approach, conventions such as the 1906 Swiss Phosphorous Match Treaty endorsed this approach. The ruling in *Shrimp-Turtle* could also be said to have been to the same effect as this convention. A very important recommendation, to help in balancing trade and environmental objectives, to ensure that such an approach does not lead to the environment triumphing over trade, may be to ensure that such extraterritoriality be legitimately permissible in the face of prior multilateral environmental conventions. This was the position adopted in the *Shrimp-Turtle* and *Scottish Red Grouse* Cases. It is also advocated at this point that in the advent of NEPAD, such toxic waste trade is promoted amongst African countries, using relevant portions of the Basel and Bamako Conventions and the Basel Ban Amendment, which would in this case be the prior established conventions, for prohibiting certain products.

Workings of the Committee on Trade and Environment in implementing measures to arrive at harmoniously balancing trade and environment objectives include its convening of regular meetings such as that of May 2003 in Cape Town for Anglophone African countries and October 2002 in Tunisia, for Francophone African countries. It is particularly remarkable that at these meetings, officials from both trade and environmental ministries in these countries are present, to voice their concerns about this debate, for discussions. At these meetings and workshops, these officials are further enlightened on the workings of the Committee. Regarding these sessions, proposals are made for more comments to be sent from various governmental officials, through the internet to Geneva, and also, through their states' Permanent Missions based there, about issues arising in the debate which affect their respective member states' trading positions.

It is also suggested that these officials be empowered to make presentations and present their input to meetings and training sessions involving trade and environment, by discussing the relevant work which they have undertaken in this area at respective country levels, in a field such as toxic waste trade regulation, the successes achieved and the remaining obstacles. This would enable them to get more involved in balancing the two spheres, through state policy and practice, instead of perceiving this whole debate as a topic which excludes them and is being thrust upon them, to the advantage of developing countries.

From the examples of the US Executive Order 13141 and the NAAEC, environmental concerns could be incorporated into the legal municipal and regional regimes of Ghana, South Africa and Côte d'Ivoire. The example of NAAEC, with its establishment of appropriate indicators and an efficient dispute settlement mechanism is vital. These instruments monitor relevant parties' compliance and progress made, while ensuring a harmonious balance between trade in toxic waste on the one hand and the adherence to environmental considerations on the other. Hence, it is important to the discussions of this thesis and African regional mechanisms. The Inter-Agency Scheme's conducting of environmental reviews of potential imports of toxic waste, as authorised by the US Executive Order 13141, is also worthy of emulation, by the three case study countries, at municipal level.

The two distinctive spheres of free trade and environmental protection, their inherent link and the manner in which they have come to gradually collide with each other have been fully discussed. The general debate concerning free trade and environmental protection could therefore be seen as being placed in perspective. Based on these discussions, some important lessons emanate which can be adapted to suit the circumstances of the three case study countries of this thesis. In the subsequent chapter, an in-depth review is made of the existing toxic waste trade practices and policies of the three case study countries. This assessment will be made with due regard to the sort of lessons which can be borrowed from this debate, as put forth in this chapter, for more efficient legal mechanisms and policy which regulate toxic waste trade in the three countries.

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<sup>1</sup> H.E. William Jefferson Clinton (then US President), Second Ministerial Conference of the WTO, Geneva, May 1998, produced in Fijalkowski, A & Cameron, J *Trade and the Environment: Bridging the Gap* London: Cameron, May (1998), at 189.

<sup>2</sup> Gaines, S *Environmental Forum*, January /February 1995, Volume 12 No. 1, 8-11, at 8. For further discussions on the trade and environment debate, see generally, Francioni, F *Environment, Human Rights and International Trade* Oxford-Portland Oregon (2001); Juma, C et al *Economic Policy Reforms and the Environment : African Experience* (1995, 1998); Macmillan, F *WTO and the Environment* Sweet and Maxwell (2001); Najam, A and Robins, N "Seizing the Future: the South, Sustainable Development and International Trade", *LA*, 77, 1 (2001), 49-68; Munro, R *Trade and Environment And The World Trade Organisation (WTO)* (Zimbabwe Trust, undated); Pugel, AP and Lindert PH *International Economics* The McGraw-Hill Higher Education (2000), 235-265, especially at 246-249, on reconciling trade and environmental concerns, with practical examples on costs involved in waste generation and pollution, as well as how this can be minimised. Revesz, RL, Sands, P and Stewart, RB *Environmental Law, The Economy and Sustainable Development* Cambridge University Press (2000); Robb, CAR *Trade and Environment*, Volume 2, Cambridge University Press (2001); Yarbrough, BV and Yarbrough RM *The World Economy Trade and Finance* A Division of Harcourt College Publishers (1999), 291-193, where it is seen that protectionism prevails in the absence of clarity and balancing of trade and environmental objectives; see for example, discussions of South Korea's Toxic Substances Control Act, at 293. Boyle, AE *Environmental Regulation and Economic Growth* Clarendon Press: Oxford (1994); Georgiou, SG *Economic Values and the Environment in the Developing World* Lyme, NH: E. Elgar Pub (1997); Baker, B "Protection, Not Protectionism: Multilateral Environmental Agreements and the GATT", 26 *Vanderbilt JTL*, (1993), 437; Bargués, JG and Muguruza MI "Trade and Environment in the WTO: the EC's Participation", *RECIEL, Focus on: Trade and Environment*, Volume 6, Issue 2, 1997, 163-170; Brack, D "Reconciling GATT and Multilateral Environmental Agreements with Trade Provisions: The Latest Debate", *RECIEL, Focus on: Trade and Environment*, Volume 6, Issue 2, 1997, 112-120; British Council, "Environmental Responsibility in World Trade" (Thematic focus of British Council Conference, held in 1998 in Britain; Article Available at <http://www.britcoun.org/seminars/erwt/1011.htm>; <http://www.britcoun.org/seminars/erwt/21.htm>; <http://www.britcoun.org/seminars/erwt/3031.htm>); Cheyne, I "Environmental Treaties and the GATT", *RECIEL*, Volume 1, Issue 1, 1992, 14-20; O'Connor, B "GATT and the Environment", *RECIEL, International Trade and Environment Issue* Volume 1, Issue 1, 1992, 6-13; Porras, IM "The Puzzling Relationship Between Trade and Environment: NAFTA, Competitiveness, and the Pursuit of Environmental Welfare Objectives," (1995) 3 *Indiana JGLS*, 65-80; Schoenbaum, T "International Trade and Protection of the Environment: The Continuing Search for Reconciliation", (1997) 91 *AJIL*, 268-313, especially at 280-281, where in four basic points, he sums up the trade and environment debate; citing Esty, DC *Greening The Gatt: Trade, Environment and the Future* Washington DC, Cambridge, Mass., Institute for International Economics, Distributed by MIT Press (July 1994), 42; Swift, B "Is International Law Really Green" *The EF*,

March/April 1995, 9-11; Ambassador B. King "The UN Global Compact: Responsibility for Human Rights, Labor Relations, and the Environment in Developing Nations", 34 *Cornell ILJ*, 481- 485, (2001) (Ambassador King, United States Representative to the United Nations Economic and Social Council, delivered this speech on 31 March 2001, as the keynote speaker for the *Cornell ILJ* 2001 symposium).

<sup>3</sup> Jackson et al *Legal Problems of International Economic Relations*, Cases, Materials and Text on the National and International Regulation of Transnational Economic Relations St Paul, Minn: West Pub. Co, (1995), at 572-573.

<sup>4</sup> Charnovitz, S "Exploring the Environmental Exceptions in GATT Article XX", *JWT* 1991 (25,5), 37-56, at 39.

<sup>5</sup> Charnovitz (1991), *Ibid*, at 40, cited in Chapter 3.5.2(a). For full text of treaty, see Convention between Great Britain and France to Regulate the Commercial and Maritime Relations between the Two Countries, 160 *CTS* 144. See especially, Article II of treaty. Convention signed at Paris, in France on 28<sup>th</sup> February, 1882; Entered into force on 16<sup>th</sup> May, 1882.

<sup>6</sup> Charnovitz (1991), *Ibid*, at 39. Here, he provides that the Treaty remains in force, see fn. 8, of page 39; For full text of Convention, see Australian Treaty Series 1919 No. 9, Department of Foreign Affairs and Trade, Canberra, Australia, International Convention Respecting the Prohibition of the Use of White (Yellow) Phosphorous in the Manufacture of Matches, adopted by Australia, Germany, Prussia, Denmark, France, Italy, Luxemburg, Nassau, The Netherlands and Switzerland, on 26<sup>th</sup> September, 1906 at Berne, in Switzerland; Entry into force generally, 1 January 1912; text available at <http://www.austlii.edu.au/au/other/dfat/treaties/1919.html>.

<sup>7</sup> Charnovitz (1991), *Ibid*; Adopted in Washington, USA on 7<sup>th</sup> July, 1911; Proclaimed on 14<sup>th</sup> December, 1911; text of treaty available at <http://fletcher.tufts.edu/multi/sea/treaty.htm>.

<sup>8</sup> Charnovitz (1991), *Ibid*. For further details, see Convention between Great Britain and the United States for the Protection of Migratory Birds, 221 *CTS* 408; Signed at Washington, in the USA, on 16<sup>th</sup> August, 1916; Entry into force on 7<sup>th</sup> December, 1916.

<sup>9</sup> Charnovitz (1991), *Ibid*, at 39-40. See Agreement Regarding the Draft Convention for the Regulation of Fishing in the Adriatic, 19 *LNTS* 13, Signed at Brioni, in Italy on 14<sup>th</sup> September, 1921; Entry into force on 26<sup>th</sup> February 1923.

<sup>10</sup> Article 20; See also, Charnovitz (1991), *Ibid*, at 40.

<sup>11</sup> Charnovitz (1991), *Ibid*.

<sup>12</sup> 38 Stat. 114; See also, Charnovitz (1991), *Ibid*, where he notes that though this law has been repealed, it has been substituted by similar legislation, at 19 *USC* 1202, *HTS*, Additional US Note 1 to Chapter 5.

<sup>13</sup> See Captive Birds Shooting (Prohibition) Act, 1921, 11 and 12 Geo 5, c 13; See also, Charnovitz (1991), *Ibid*, at 40, where he provides that other examples of similar laws which have existed for years are the 26 Stat. 833 of 1891, repealed but substituted for, by similar legislation codified at 46 *USC* 3901. This law empowered the US Secretary of Agriculture to establish rules for shipping cattle to foreign countries in order to ensure that such animals were humanely treated. Furthermore, the US Lacey Act of 1900 prescribed the importation of wild animals or birds except under permit; the Alaska Fisheries Act of 1926 also authorised the federal regulation of nets, boats, traps and other gear used in fishing, and made it unlawful to import salmon from water outside American jurisdiction in violation of such regulations.

<sup>14</sup> See Convention between the Congo Free State, France, Germany, Great Britain, Italy, Portugal and Spain for the Preservation of Wild Animals, Birds and Fish in Africa, 188 *CTS* 418; Report here with text of treaty also notes that Convention was not ratified but given to many regions in the British Protectorates and the Congo State; Treaty Signed at London, in the UK on 19<sup>th</sup> May, 1900.

<sup>15</sup> Charnovitz (1991), *Ibid*; Treaty adopted by the Governments of the Union of South Africa, Belgium, the United Kingdom of Great Britain and Northern Ireland, Egypt, Spain, France, Italy, Portugal and the Anglo-Egyptian Sudan, at London, UK, on 8<sup>th</sup> November, 1933 and entered into force on 14<sup>th</sup> January, 1936; text of treaty available at <http://fletcher.tufts.edu/multi/texts/BH142.txt>. It must be borne in mind that this Treaty was replaced by the African Convention of 1968, See fn. 33 of Charnovitz. This means that the inherent relationship between trade and environmental concerns was existent not only in the developed world, but also, in Africa, some years back.

<sup>16</sup> For a further discussion of these and other similar agreements, see Esty (1994), *Supra* 2, 275-281; 1940 treaty here adopted on 12<sup>th</sup> October, 1940 at the Pan American Union, Washington DC, USA; Parties to treaty: Argentina (with reservation), Brazil, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala,

Haiti, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, USA, Uruguay and Venezuela; Entry into force, 1<sup>st</sup> May, 1942; text of treaty available at <http://fletcher.tufts.edu/multi/texts/BH145.txt>.

<sup>17</sup> See Charnovitz (1991), Supra 14; Treaty adopted by Heads of State and Government of Independent African States, on 15<sup>th</sup> September, 1968 at Algiers, in Algeria; Entry into force: 16<sup>th</sup> June, 1969; text of treaty available at [http://fletcher.tufts.edu/multi/texts/african\\_convention.txt](http://fletcher.tufts.edu/multi/texts/african_convention.txt).

<sup>18</sup> Palmetier, D "Environment and Trade: Much Ado About Little?" (Anderson, K and Blackhurst, R (eds.), *Review Essay of the Greening of World Trade Issues*, Harvester Wheatsheaf (1992)), *JWIT* 1993 Vol. 27 No.3, 55-70, at 55.

<sup>19</sup> Schneider-Sawiris, S *The Concept of Compensation in the Field of Trade and Environment* Morges, Switzerland: International Union for Conservation of Nature and Natural Resources (1973), Chapter 1.

<sup>20</sup> See paragraph 4.3, Founex Report, produced in Schneider-Sawiris (1973), Ibid.

<sup>21</sup> See UN Resolution 2849, XXVI, December 1971, produced in Schneider (1973), Ibid; See also "Resolutions Adopted by the General Assembly During its Twenty-Sixth Session", available at <http://www.un.org/documents/ga/res/26/ares26.htm>.

<sup>22</sup> Paragraph 3, produced in Schneider-Sawiris (1973), Ibid.

<sup>23</sup> Paragraph 57, produced in Schneider-Sawiris (1973), Ibid.

<sup>24</sup> See Schneider-Sawiris (1973), Ibid.

<sup>25</sup> See Schneider-Sawiris (1973), Ibid, especially at 6. See also, the principle of common but differentiated responsibility, discussed in Chapter 3.2.10.

<sup>26</sup> Schneider-Sawiris (1973), Ibid, especially at 7; Fijakowski and Cameron (1998), Supra 1, at 10.

<sup>27</sup> United Nations Economic Commission for Africa "Africa and the Multilateral Trading System and the World Trade Organization (WTO): Seattle and Beyond" (undated), at 89, on African perspectives regarding the trade and environment agenda.

<sup>28</sup> See GATT Document L/3538 (1971), cited in Nordström, H and Vaughan, S "Special Studies 4", World Trade Organization, Trade and Environment (1999), at 67, Annex I, II and also, fn. 2 of that page. Discussions from pp 67-102 of this document are also useful for placing the trade and environment debate within a historical perspective, and also, understanding some GATT/WTO case law and agreements on the subject.

<sup>29</sup> For the details on the historical development of the trade and environment debate, see generally, World Trade Organization, Trade and Environment Division, *Background Document on Trade and Environment* January 2002, 4-7, where sustainable development, as defined by the Brundtland Report (1987), is seen to be contributory to the trade and environment debate, together with factors discussed in this Chapter; Sampson, GP and Chambers, WB *Trade, Environment and the Millennium* United Nations University Press, Tokyo, New York, Paris (1999), Chapters 1 and 2; Charnovitz (1991) Supra 17, at 37-47; See also Esty (1994) Supra 15, 9-59; Werksman, J *Greening International Institutions* Foundation for International Environmental Law and Development, Earthscan Publications Limited, London (1996), 94-95; Jackson et al (1995), Supra 3, at 561; Sands, P *Greening International Law* The New Press, New York (1994), Chapters 5, 6 and 7; O'Connor (1992), Supra 2, 7-8.

<sup>30</sup> Sampson and Chambers (1999), Ibid, at 394.

<sup>31</sup> This was Mr. Arthur Dunkel, see Werksman (1996), Supra 29.

<sup>32</sup> Finally, Ambassador H. Ukwa of Japan was designated as chairman of the group, see Sampson and Chambers (1999), Supra 30.

<sup>33</sup> Sampson and Chambers (1999), Ibid.

<sup>34</sup> Sampson and Chambers (1999), Ibid.

<sup>35</sup> Sampson and Chambers (1999), Ibid, 308-309.

<sup>36</sup> Ambassador B.K. Zutshi of India, cited in Sampson and Chambers (1999), Ibid, at 310. See also, assessment of mandate of WTO Committee on Trade and the Environment, Paragraph 1, Chapter 3.4.10 of thesis, with particular emphasis on Shaw, S "Trade and the Environment: The Post-Singapore WTO Agenda", *RECIEL, Focus on: Trade and Environment*, Volume 6, Issue 2, 1997, 105-111.

<sup>37</sup> See fn. 84 of Chapter 2. See also, World Trade Organization, "The Environment-A New High Profile" (Available at [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/bey4\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/bey4_e.htm)), 1-2.

<sup>38</sup> See Chapter 2.4 under emerging international trade principles. For relevant aspects of WTO Articles to environmental considerations, see also, Morton, SC "The Use of Trade Sanctions in Multilateral Environmental

Agreements and the Interaction with GATT: Flipper Meets Gattzilla" (A Discussion Paper, Copyright Shawn Cameron Morton 1996, 1998 (Available at: <http://www.web.net/~smorton/wto-meas.html>); World Trade Organization, Trade and Environment Division (2002), Supra 29, 8-11.

<sup>39</sup> See Preamble of WTO Agreement.

<sup>40</sup> In this regard, see for example, Patterson, E "GATT Law and the Environment: Rules Changes Minimize Adverse Trade and Environmental Effects", *JWT*, 1992 (26,3), 99-109, where she discusses other environmentally-related aspects of WTO Agreements, such as Articles VIII, X, XI, XVIII and VI. Under Article II, it is perceived that countries agree to limit their tariff rates on designated items to negotiated levels and are precluded from levying import charges. Article II further allows an important exceptions concerning charges on imports if they are equivalent to domestic taxes imposed on either the "like" domestic products or materials used in the manufacture of the imported product. This exception would cover the legitimate imposition of fees on imports which posed an environmental hazard, 100-101.

<sup>41</sup> Article XX (b).

<sup>42</sup> Article XX (g).

<sup>43</sup> Article XX (j). See also, Chapter 2.3.2 (a), under Article XX WTO exceptions. See also, Palmeter (1993), Supra 18, at 60-62, where he suggests extensively revising the GATT XX exceptions, given the importance of environmental concerns and their likelihood to triumph over trading matters, if there is any conflict between the two spheres. See also, World Trade Organization Committee on Trade and Environment, "GATT/WTO Dispute Settlement Practice Relating to GATT Article XX, Paragraphs (b), (d) and (g)," 8 March 2002 (WTO Document WT/CTE/W/203), for a discussion of these stipulations and relevant case law including those cited herein.

<sup>44</sup> Charnovitz (1991), Supra 29, 47-54.

<sup>45</sup> See generally, Joseph, T "Preaching Heresy: Permitting Member States to Enforce Stricter Environmental Laws Than the European Community", *The Yale JIL* Summer 1995, Volume 20, Number 2 (1995), 227-271.

<sup>46</sup> See Neumayer, E "Greening the WTO Agreements: Can the Treaty Establishing the European Community be of Guidance?" *JWT* 35(1) February 2001, 145-166, at 152-153.

<sup>47</sup> Ward (1994), "Trade and Environment in the Round-and After", *JEL*, Volume 6 No. 2 (Oxford University Press, 1994), 263-295, at 273-281.

<sup>48</sup> GATT, BISD 29S/108 and GATT, BISD 30S/55.

<sup>49</sup> See Chapter 3.5.2 (a) on disguised restriction.

<sup>50</sup> Charnovitz (1991), Supra 44, at 47-48.

<sup>51</sup> GATT, BISD, 29S/108.

<sup>52</sup> GATT, BISD, 35S/125.

<sup>53</sup> See Charnovitz (1991), Supra 50, at 48.

<sup>54</sup> 37<sup>th</sup> Supp. BISD 200, 1990; GATT Doc. DS/R (1990). On the necessity/proportionality test, see also, Montini, M "The Nature and Function of the Necessity and Proportionality Principles in the Trade and Environment Context", *RECIEL, Focus on: Trade and Environment*, Volume 6, Issue 2, 1997, 121-130, at 123, he states that according to the Agreement on Technical Barriers to Trade, the necessity test is a preliminary test of reasonableness of the national measure, which must fulfil a legitimate objective. Hence, the technical measure adopted at national level must be the least-restrictive to free trade, which is reasonably available. At 122, he also provides the interpretation of the term necessary in the *Thai* case, as meaning "least/less GATT inconsistent or least/less trade-restrictive".

<sup>55</sup> See XX(d) of GATT/WTO Agreement.

<sup>56</sup> BISD 35 Supp. 98 (1988); discussed in Neumayer (2001), Supra 46, at 153. Here, at fn. 10, he also describes the test in this case as a rather restrictive one, which was more broadly interpreted in the *Reformulated Gasoline* Case, where it was stated that this requirement is "not itself treaty language and was not designed as a simple litmus test for inclusion or exclusion from Article XX(g). See also, Chapter 3.5.2(a) of thesis for discussions on this case.

<sup>57</sup> *In the Matter of Canada's Landing Requirement for Pacific Coast Salmon and Herring*, BISD 35 Supp. 98 (1988); See also, Final Report, 16 October 1989, paras. 7.04-7.11 and 7.38; discussed in Charnovitz (1991), Supra 50, at 50-51.

<sup>58</sup> Ibid.

<sup>59</sup> (1994) 33 ILM 1399; See also, Neumayer (2001), Supra 56, where he notes that many subsequent cases adopted the same approach.

<sup>60</sup> Neumayer (2001), *Ibid.*

<sup>61</sup> Cited in Charnovitz (1991), *Supra* 53, fn. 79, 52-53. However, the existence of cross-border environmental problems such as the US-Mexico maquilados, influx of butterflies from Mexico to Canada cases relating to the protection of the international commons, global environmental treaties and concerns over the protection of seals, fisheries, for instance, reinforce the view in *Shrimp-Turtle*.

<sup>62</sup> Schoenbaum, T "International Trade and Environmental Protection", produced in Birnie, PW and Boyle, AE *International Law and the Environment* Oxford University Press Second Edition (2002), 697-750, at 713. For further details on this and creative unilateralism, with various opinions of writers such as Neumayer, Ziegler and Kraëmer, see discussions in Chapter 3.5.2(a). See also, the US Tariff Act of 1930; the Phosphorous Match Treaty, 1906, *Supra* 6; the US Trade Expansion Act of 1962 which empowers the President to increase duties on fish imports with a view to pressurising countries to enter into international fisheries conservation agreements: 76 Stat. 883; codified at 19 USC 123; the US Pelly Amendment Act of 1971 and the Montréal Protocol on Substances that Deplete the Ozone Layer, 1987.

<sup>63</sup> See *Supra* 61.

<sup>64</sup> See Chapters 3.1.1 and 3.1.2.

<sup>65</sup> See Chapter 4.4.1. For further references, see discussions of case law and the emanating principles in Chapters 4.4 and 4.5.

<sup>66</sup> See See Annex 3(A), under findings for Ghana for questions 3 and 4; see also, Chapters 5.4.13. In a sense, this could also be seen to tie in with the issue of extraterritoriality, discussed in Chapter 3.5.2 (b); see also, Rege, V "GATT Law and Environment-Related Issues Affecting the Trade of Developing Countries", *JWT* 1994 (28,3) 95-170, at 132-140, where under GATT/WTO rules, he discusses ecolabelling and consequently, product-processing methods in this light. See also, Ward, H "Trade and Environment Issues in Voluntary Eco-Labeling and Life Cycle Analysis", *RECIEL, Focus on: Trade and Environment*, Volume 6, Issue 2, 1997, 139-147; Schoenbaum (1997), *Supra* 2, 294-295; World Trade Organization, Trade and Environment Division (January 2002), *Supra* 29, 15-17.

<sup>67</sup> Housman, R et al United Nations Environment Programme: The Use of Trade Measures in Select Multilateral Environmental Agreements No. 10 Environment and Trade Series (1995), at 42.

<sup>68</sup> See Preamble Clause.

<sup>69</sup> Article 2.2. See also, Housman et al (1995), *Supra* 67, at 49.

<sup>70</sup> Article 2.2; See also, Housman et al (1995), *Ibid.*

<sup>71</sup> Article 5.5.

<sup>72</sup> See Chapter 5.4.9 for analytical details of this case.

<sup>73</sup> See Rege (1994), *Supra* 66, 154-155, for discussions pertaining to environmental subsidies in the Agreement on Agriculture; See also preamble of this Agreement, which reiterates the commitment of Members to reform agriculture in order to conform to environmental protection. Pursuant to Annex 2, domestic support measures with minimal impact on trade ("green box" policies) are excluded from reduction commitments, such as expenditures under environmental programmes, provided that they meet certain conditions. Through this exemption, Members are able to capture positive externalities.

<sup>74</sup> Rege (1994), *Ibid.*, at 154; See 152-153 for further details *inter-alia*, of the Subsidies and Countervailing Agreement, as it relates to the environment; Patterson (1992), *Supra* 40, at 105-106; See also, Article 8 and 8.2(c) of the Agreement.

<sup>75</sup> Article XIV. This position is reaffirmed in the Formal Decision Concerning Paragraph (b) of Article XIV.

<sup>76</sup> Article VI.

<sup>77</sup> Article VII. The GATS has also established a Working Party which will also examine the relevance of inter-governmental agreements on the environment and their relationship to the GATT.

<sup>78</sup> For full details of importation of toxic waste in the form of obsolete computers from the USA into China and Mexico as well as the resultant environmental perils on these two countries, see Xinhuanet "China to Tighten Control Over Import of Electronic Wastes" *Toxic Trade News*, Beijing, 30 May 2002 (Also available at [http://www.ban.org/ban\\_news/china\\_to.html](http://www.ban.org/ban_news/china_to.html)); See also Green, K (*Union Tribune*) "Technology's Toxic Trash", *Toxic Trade News*, California, 7 July 2002 ("Electronic Waste from Old Computers, TVs Creates Heaping Mess"), *Toxic Trade News*, California, 7 July 2002 (Also



available at [http://www.ban.org/ban\\_news/technology%27s\\_toxic.html](http://www.ban.org/ban_news/technology%27s_toxic.html)). At this point, it may also be emphasised that third world countries are in dire need of computers, as 99% the students from Sub-Saharan Africa for instance, come out of school without being computer literate, BBC news, 15<sup>th</sup> June 2003, 02:00 hours (GMT, that is, 2:00 a.m. on SABC 3). The need for such technological sophistication could be resolved through free trade under the GATS Agreement for instance. However, due caution must also be given to the kind of electronic equipment which is imported in service trade into the three case study countries and others of the continent, to avoid the US- China, Mexico case being discussed here. See also, fn. 202, Chapter 3.4.1(f) for Basel's Mobile Phone Initiative, discussed here.

<sup>79</sup> Article 27(3). See also, Articles 27.2. These articles are in Section 5 of the Agreement, which specifically refers to the environment. See World Trade Organization, "The Environment-A New High Profile" (Available at [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/bey4\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/bey4_e.htm)), for a discussion of trade and environment issues such as the environmentally-related aspects of WTO provisions, indicated above.

<sup>80</sup> See Housman et al (1995), Supra 70, at 58-59. For further details on the relationship of the TRIPS Agreement to the Convention on Biodiversity, see Downes, D "The Convention on Biological Diversity and the GATT", in Housman et al, Chapter 7, at 197-251; Tarasofsky, RG "The Relationship between the TRIPs Agreement and the Convention on Biological Diversity: Towards a Pragmatic Approach", *RECIEL, Focus on: Trade and Environment*, Volume 6, Issue 2, 1997, 148-156.

<sup>81</sup> See Supra 36, and Chapter 3.4.10 on the mandate and workings of the WTO Committee on Trade and Environment, as it relates specifically to the harmonisation of trade and environmental concerns.

<sup>82</sup> Tamioiti, L (Legal Affairs Officer, WTO Committee on Trade and Environment), WTO Regional Workshop on Trade and Environment for Anglophone Countries, 19-21 May 2003, Cape Town, South Africa, on 20 May 2003; See also, World Trade Organization Committee on Trade and Environment (Special Session), "Compilation of Submissions Under Paragraph 31(i) of the Doha Declaration" (WTO Document TN/TE/S/3/Rev.1), 23 April 2003, for perspectives of different countries and the way forward, concerning the reconciliation of member states' trade commitments with their obligations under MEAs.

<sup>83</sup> See Paragraph 167 of Report of First WTO Ministerial Meeting in Singapore (WTO Document WT/MIN (96)), Conclusions and Recommendations, December 1996.

<sup>84</sup> See Report of Second WTO Ministerial Meeting in Geneva (WTO Document WT/MIN (98)), May 1998.

<sup>85</sup> See for example, Jonquières, G and Williams, F (in Seattle) "WTO Accord in Sight, but Differences Persist", *Financial Times*, 4 to 5 December 1999; Clover, C (in Seattle) "US Battle to Save Trade Talks Amid Flood of Rebukes", *The Daily Telegraph*, 4 December 1999; Regnier, P "Et Si L'Echec de Seattle Avait Été Délibérément Orchestré Par Les États-Unis?", *Économie Le Soir du Lundi* 6 Décembre 1999; Regnier, P "Le Sommet de l'OMC Implose à Seattle", *Économie*, 6 Décembre, 1999, cited in fn. 34, Chapter 2, regarding the inability of the third WTO Ministerial Meeting to accomplish its desired aims in Seattle, Washington State, USA in December 1999.

<sup>86</sup> See Paragraph 6 of the Doha Ministerial Declaration (WTO Document WT/MIN(01)/DEC/1), November 2001. See also, Paragraphs 31, 32, 33 and 51 of that document. On the co-operative workings of the Committee of Trade and Environment and the Basel Convention, see fn. 201, Chapter 3. For further referencing on the balancing of the trade and environment debate, see also, the workings of other mechanisms such as UNCTAD and the UN Commission on Sustainable Development, discussed in Chapters 3.4.7 and 3.4.9 respectively. These discussions specifically touch on the sort of responsibilities which these organizations carry out in toxic waste trade. Their relevance at this point lies in their illustration of the practical aspects of reconciling trade and environmental concerns. See also, Paragraphs 146 and 147 of the Report of UNCTAD X, Bangkok, 2000, which is the biggest mandate of trade and environment in the history of UNCTAD. For further discussions, see also, Stilwell, M "Environment, Trade and Sustainable Development-An Overview of Key Issues Arising from the World Summit on Sustainable Development and the WTO Doha Work Programme", Background Paper prepared for the March 2003 UNEP Capacity Building Meeting on Environment, Trade and Sustainable Development for the Latin American and Caribbean Region; World Trade Organization Committee on Trade and Environment (Special Session), "Compilation of Submissions Under Paragraph 31(i) of the Doha Declaration" (WTO Document TN/TE/S/3/Rev.1), 23 April 2003.

<sup>87</sup> See Report of WTO Regional Workshop on Trade and Environment for Anglophone Countries, 19-21 May 2003, Cape Town, South Africa, on 20 May 2003; For further information on the activities of the WTO's Committee on Trade and Environment, such as working sessions, workshops and other meetings as far as reconciling trade and environmental considerations are concerned, see also, World Trade Organization, "Trade and Environment Bulletins", (Available at [http://www.wto.org/english/tratop\\_e/envir\\_e/bull\\_e.htm](http://www.wto.org/english/tratop_e/envir_e/bull_e.htm)); World Trade Organization, "Trade-and-Environment Material on the WTO Website" (Available at

[http://www.wto.org/english/tratop\\_e/envir\\_e/envir\\_e](http://www.wto.org/english/tratop_e/envir_e/envir_e)); World Trade Organization, "Trade, Environment and Sustainable Development" (Available at <http://www.fao.org/ur/fact/1-eng.htm>); World Trade Organization, "World Trade Organization High Level Symposium on Trade and Environment", 15-16 March 1999; "World Trade Organization High Level Symposium on Trade and Development", 17-18 March 1999, (Available at [http://www.iisd.ca/sd/wtohl/sdvol12no2e\\_rev.html](http://www.iisd.ca/sd/wtohl/sdvol12no2e_rev.html)); World Trade Organization, "International Institute for Sustainable Development Report on the WTO's High-Level Symposium on Trade and Environment", 15-16 March 1999 (Available at [http://www.wto.org/english/tratop\\_e/envir\\_e/sumhlenv.htm](http://www.wto.org/english/tratop_e/envir_e/sumhlenv.htm)); World Trade Organization, "WTO Report: The Need for Environmental Co-operation" (Available at [http://www.wto.org/english/tratop\\_e/envir\\_e/stud99\\_e.htm](http://www.wto.org/english/tratop_e/envir_e/stud99_e.htm)); It becomes evident from some of these references here that the WTO collaborates with environmental NGOs in its workings, demonstrating its commitment to reconciling trade and environmental objectives. See also, *WTO Press Release*, 8 October 1999, and Nordström and Vaughan (1999), Supra 28.

<sup>88</sup> See Makuch, Z "The WTO and the GATT", produced in Werksman (1996), Supra 29, 94-116, at 110 to 111. See also, the workings of UNCTAD, FIELD and DFID, on empowering developing countries to deal with trade and environmental issues, by assisting developing countries in Asia, Latin America and Africa, to build national and regional capacities to deal with trade, environment and development issues, available at [http://www.unctad.org/trade\\_env](http://www.unctad.org/trade_env). This project which involves 15 developing countries in 3 regions aims at *inter-alia*, facilitating a process of improving policy co-ordination on trade and environment issues of key concern to the beneficiary countries in a manner that reflects developmental needs, and also, to assist beneficiary countries in developing and implementing practical and meaningful legal and policy initiatives in at least one specific trade and environment area. Project activities include customized training workshops for specific stakeholders based on national case studies in core and partner countries, for a duration of three to four days, see UNCTAD and FIELD, "Building Capacity for Improved Policy Making and Negotiation on Key Trade and Environment Issues": A New UNCTAD-FIELD Project. See workings of the UN CSD on Trade and Sustainable Development, as they touch on reconciling trade and environmental objectives, Makuch in Werksman, at 111. See further, Arda, M "The UNCTAD", in Werksman (1996), at 71-93, especially at 90, where (s)he discusses the Work Programme of UNCTAD as a Whole on the Issue of the Environment and Sustainable Development, as this focuses on making trade and environment mutually supportive, thereby recognizing relevant aspects of Paras. 2.21 and 2.22 of Agenda 21, on trade, Annex. In "The UNCTAD", the workings of this UN agency, as it attempts to make the trade and environment mutually supportive, are discussed, with references to the Analytical Report to the Eighth Conference of the UNCTAD, for example.

<sup>89</sup> Presentation by WTO Committee on Trade and Environment, WTO Regional Workshop on Trade and Environment for Anglophone Countries, Supra 82, on 21<sup>st</sup> May 2003.

<sup>90</sup> See for example, Paragraphs 54, 55. and Annex 3, World Trade Organization Committee on Trade and Environment, "Report to the 5<sup>th</sup> Session of the WTO Ministerial Conference in Cancún" (WTO Document WT/CTE/8), 11<sup>th</sup> July 2003.

<sup>91</sup> Cited from Esty (1994), Supra 15, at 30-31 (Box 1.3). See (1991) ILM 1594 (1991) or GATT Doc. 21/R (3 September 1991) for *Tuna-Dolphin Case I* and (1994) ILM 839 (May 1994) for *Tuna-Dolphin Case II*. For discussions on this case, see also, Housman et al (1995), Supra 80, 45-42; Jackson et al (1995), Supra 3, 575 – 584; Sampson and Chambers (1999), Supra 36, 204-206; Van Calster G *International and EU Trade Law: The Environmental Challenge* London: Cameron May (2000), 223-233; Ward, H "Trade and Environment in the Round-and After", *JEL*, Volume 6 No. 2 (Oxford University Press, 1994), 263-295, at 273 to 281; and Asamani, Y *The World Trade Organization and Developing Countries, with Specific Reference to South Africa* (Unpublished LLM Dissertation, University of Cape Town, January 1998), Chapter 3.1.3, on *Tuna-Dolphin*; Sands, P "Danish Bottles and Mexican Tuna", *RECIEL, International Trade and the Environment Issue*, Volume 1, Issue 1, 1992, 29-33; As stated by Schoenbaum (1997), Supra 66, at 268 and fn. 5 there, this case led to such a voluminous production of material in journals and popular press, that is impossible to cite all of them. These references are therefore a few of many publications on this case.

<sup>92</sup> See Jackson et al (1995), Supra 29; and Sands (1994), Ibid, 98-99, and Chapter 7.

<sup>93</sup> See for example, Gaines (1995), Supra 2, at 10.

<sup>94</sup> Neumayer (2001), Supra 59, at 160-162. On extraterritoriality, see also, Chapter 3.5.2 (b) of thesis, where this is discussed in full.

<sup>95</sup> Sands (1994), Supra 92, 98-99.

<sup>96</sup> Principle 12. See also, Jackson et al (1995), Supra 92, 573 and 584.

<sup>97</sup> See Kumar, A et al "The NAFTA", produced in Werksman, (1996), Supra 88, 116-128, especially at 120-122, for example, on the structure and functions of the NAAEC.

<sup>98</sup> See Esty (1994), Supra 91, 27-29.

<sup>99</sup> See Chapter 2.4 of this thesis, under the *WTO Carcinogenic Asbestos Case*, WT/DS135, WT/DS135/1 and WT/DS135/3. See also, *BRIDGES Weekly Trade News Digest*, Vol. 4 No. 35, 19 September 2000; <http://www.field.org/uk/papers/tepap.htm>; See also, similar case involving the ban of asbestos from Canada to the US, *Corrosion Proof Fittings v Environmental Protection Agency*, 947 F. 2d 1201 (5<sup>th</sup> Cir. 1991), discussed in Palmetier, D "Environment and Trade: Who Will be Heard? What Law is Relevant?" *JWT* 1992 Vol. 26 No. 1, 35-41.

<sup>100</sup> See Chapters 3.1.1(c) and 3.4.10, under this particular recommendation of thesis.

<sup>101</sup> Parmentier, R "David and Goliath Travel to Qatar", Greenpeace, At the WTO's 4<sup>th</sup> Ministerial Conference (Available at [http://www.archive.greenpeace.org/politics/wto/Doha/html/remi\\_oped.htm](http://www.archive.greenpeace.org/politics/wto/Doha/html/remi_oped.htm)).

<sup>102</sup> "For a small country like Sri Lanka, the mere thought that it could be condemned to pay compensation is frightening", see Parmentier, Ibid, where he states that clearly, any small country can be hostage of the WTO whenever they try to legislate to protect the environment or health of their people, if this goes against the vested interests of the rich few. Furthermore, for this and other similar reasons, the Greenpeace Ship Rainbow Warrior was represented in Doha during the Ministerial Conference of the WTO, to articulate such concerns, as they pertain to developing countries' interests.

<sup>103</sup> On Genetically Modified Organisms (GMOs), SABC news of 17<sup>th</sup> June 2003, 00:00 hours GMT, midnight, indeed confirmed that appropriate international guidelines have been stipulated by UNEP, for the safe handling and use of GMOs. If this is the case, then the GMOs may be accepted, without the need for the adoption of the precautionary principle as a basis to reject these substances.

<sup>104</sup> See WT/DS26 for complaints by the US and WT/DS48 for complaints by Canada; See similar EU cases involving beef obtained from cows with mad cow disease, for example, "Britain Steps Up Madcow Checks", <http://www.cnn.com/2001/WORLD/europe/UK/02/03/germany.bse/>, 3 February 2001. See also, GMO Cases involving Sri Lanka and the US, discussed in Chapter 4.4.4.

<sup>105</sup> See Chapter 2.3.2 and Chapter 3.4.10 on proposal of thesis for explicit environmental considerations, to be annexed to GATT Article XX. This, will arguably, ensure greater clarity in trade and environmental matters; See Chapter 2.3.2 (b) on discussion of this case, from this perspective and fn. 52 of Chapter 2 in this regard.

<sup>106</sup> GATT, BISD 34 Supp. 136 (1987). See also, Appleton, AE "GATT Article XX's Chapeau: A Disguised 'Necessary' Test?: The WTO Appellate Body's Ruling in United States-Standards for Reformulated and Conventional Gasoline" *RECIEL*, Volume 6, Issue 2, 1997, 131-138.

<sup>107</sup> 37<sup>th</sup> Supp. BISD 200, 1990; GATT Doc. DS/R (1990).

<sup>108</sup> See paragraph 81 of GATT Doc, Ibid. For further discussions on this test, see also, Neumayer (2001), Supra 94, at 152-153, where he also provides that although the GATT has made no express ruling on the proportionality test, it interpreted this test in the cases above.

<sup>109</sup> *UNEP Press Release 2003/02*, "Switch to Unleaded Petrol in Sight for Africa", (from UNEP Governing Council Meeting, 3-7 February, 2003, Nairobi, Kenya.), where the UNEP Unleaded Gasoline Initiative was also discussed.

<sup>110</sup> See discussions of the *Shrimp-Turtle Case*, Chapters 2.3.2 (a) and 3.5.2 (a), for other details relating to the facts of this case; See also Asamani (1998), Supra 91, Chapter 3.1.3 on the *Shrimp-Turtle Case*; Kaczka, DE "A Primer on the Shrimp-Sea Turtle Controversy", *RECIEL*, *Focus on: Trade and Environment*, Volume 6, Issue 2, 1997, 171-180; Neuling, "The Shrimp-Turtle Case: Implications for Article XX of GATT and the Trade and Environment Debate", (1992) 22 *Loyola ICLR*, 1, 19.

<sup>111</sup> WTO 1998, para. 166.

<sup>112</sup> WTO, 1998, paras. 163-165.

<sup>113</sup> WTO, 1998, para. 174.

<sup>114</sup> WTO, 1998, para. 175.

<sup>115</sup> WTO, 1998, para. 180.

<sup>116</sup> This may be in conformity with the precautionary principle. See Chapter 3.5.2 (b) on relevant point under extraterritoriality, as this could then work to the benefit of developing countries, including the three case study countries of this thesis. For further referencing on WTO case law as it relates to the trade and environment debate, see for example, Charnovitz, S "WTO's Alcoholic Beverages Decision", *RECIEL, Focus on: Trade and Environment*, Volume 6, Issue 2, 1997, 198-202; Given its relevance to the trade and environment debate, the *Chile-EU Swordfish* case, might also cited here. It did not go to the WTO or any dispute settlement panel, but is being discussed at this point because of its focus on trade and environment. In this case, Chile banned the entry into its ports, foreign vessels harvesting swordfish inside and outside its (Chile's) 200-mile Exclusive Economic Zone. The relevant issues in this case included ascertaining whether a trade restriction was the most efficient policy instrument for addressing environmental concerns, what happened if a measure was in accordance with an MEA but in violation of the WTO, and which body of international law, that is, WTO or MEA, could resolve this dispute. This case did not go far, as mentioned, but is important for the trade and environment debate, especially, from an academic perspective. See presentation by Tamioiti (2003), Supra 89; *BRIDGES Weekly Trade News Digest*, Vol. 4 No. 29, 25 July 2000.

<sup>117</sup> Case 302/86, 1988 ECR 4607; see also, Sands (1992), Supra 91, 28-29.

<sup>118</sup> It is noteworthy that since the conclusion of the EU Treaty of Rome Amendments, included in the Single European Act ("SEA") in 1987 and the Maastricht Treaty (the "Treaty on European Union" or "TEU") in 1993, imperative environmental interests have sometimes been protected at the expense of free trade. This is evident in the proclamation of environmental principles such as the polluter pays and precautionary principles (see TEU Article 100(a)(3), 130r-t) numerous regulations for the protection of air, land, water and wildlife and a series of Community publications of environmental action programmes from 1972 (see EU Declaration of heads of State on Environmental Protection) through 1986 till 1992 and now. A series of symposia such as the Commission's 1992 Vehicle Emissions Symposium staged in Brussels in September 1992, have also been convened to study environmental problems. Additionally, the EU has issued 200 environmental measures such as the Council Resolution 1977 O.J. (C139) 1 and the Resolution of the Council on the Continuation and Implementation of a European Community Policy and Action Programme on the Environment, 1973 O.J. (C 112) 1. See Joseph (1995), Supra 45, at 229-223 for full details. All these measures reflect a departure from the traditional single-minded pursuit of the ideals of free trade within the Community toward a more balanced trade-environment oriented approach, see Joseph (1995), at 229. She further discusses the Community's commitment to environmental protection, where she provides some salient features of this commitment. For instance, it was stated in the Danish bottles case that environmental protection was an "essential objective" of the European Community. A series of international environmental conventions, the five Action Programs on the Environment, environmental legislation as well as various environmental statements and decisions of the Community on the environment, are also significant of these environmental goals; See Articles 2, 3(k), 100 (a)(3) and 130(r), at 239-240 for instance, on environmental protection laws, as well as her discussion of the EU's approach to balancing imperative environmental interests against free trade concerns, through relevant case law, such as *Cassis de Dijon*, *Commission v Belgium*, and the others discussed in Chapter 4.5.

<sup>119</sup> 240/83; 1984 ECR 531.

<sup>120</sup> Ibid. See also, the *Syndicat National des Fabricants Raffineurs d'Huile de Graissage and Others v. Groupement d'Intérêt Economique 'Inter-Huiles' and Others*, ECJ Case 172/82, Court of Justice of the European Communities, Luxembourg, 10<sup>th</sup> March 1983, discussed in Cairo AR Robb, *Trade and Environment*, Volume 2, Cambridge University Press (2001), 503-522; *ADBHU*, 1985 ECR, 547 is also important at this point, as it involved a French law, enacted in conformity with the Community Directive which enjoined member states to pass legislation on safe collection and disposal of waste oil. The French law was more stringent than the Community directive as the former banned the burning of waste oils except in certain industrial installations. However, the EEC required companies to obtain a permit prior to undertaking any kind of activity involving waste disposal. The French government applied this law in relation to an industrial company which burned waste oils on the grounds that the aims and objects of this association were illegitimate. While interpreting the Directive with due consideration to environmental concerns, one essential objective of the Community (see *ADBHU*, at 549), the Court ruled that the French measure was not discriminatory. Neither did the French law go beyond the inevitable restrictions which are justified by the pursuit of the objective of environmental protection, which is in the general interest (see *ADBHU*, Ibid). For further discussions of EU case law involving waste trade, as it touches on trade and the environment, see Joseph (1995), Supra 118, 242-261.

<sup>121</sup> Case 120/78, 1979 ECR 649.

<sup>122</sup> Article 30 specifically established a prohibition against quantitative restrictions on imports among member states, including measures with an effect equivalent to trade restrictions-non tariff barriers. Article 36 offers exceptions to Article 30 for reasons of public policy, security or morality; the protection of health and life of humans, plants and animals, and the protection of national heritage and property.

<sup>123</sup> About this case, Esty (1994), Supra 91, at 262, states that the adoption of a balancing test established that disparities in national laws for the sake of protecting public goods were legitimate and to be expected until full harmonisation of standards could be accomplished within the common market. While this case specifically addressed health measures, subsequent decisions have extended the *Cassis de Dijon* precedent to include environmental measures and established the "rule of reason" and proportionality analysis as the basis for adjudication of cases involving environmental regulations with trade effects. For further referencing, see also, the EU case of *Gilli* 788/79, 1980 ECR 2071 (1980), where the ECJ struck down a ban by the Italian government, prohibiting the sale of all vinegar except wine vinegar, claiming that this measure was necessary to protect its consumers. The ECJ reasoned that this ban lacked proportionality, served no necessary interest and protected neither the health standards nor commercial quality of the Italian government. In the absence of a proportional relationship between the intrusion of the trade measure and the advantages to public health, the statute was deemed to be unnecessarily disruptive to trade. For further references, see *US-EC Disputes Over Beef Hormones*, Supra 104. See also, Supra 104 and Supra 105. See *Fungicide Residues in Wine* (International Trade Reporter, 1 May 1991, 652); *Dean Milk Co. v. Madison* 340 US 349 (1951); *Huron Portland Cement Company v. Detroit* 362 US 440 (1960); *Pike v. Bruce Church* 397 US 137 (1970); *Palladio v. Diamond* 321 F. Supp. 630 (S.D.N.Y.) (1971); *American Can v. Oregon Liquor Control Commission* 517 P.2d 691 (1972); *Proctor and Gamble v. Chicago* 421 US 978 (1975); *Philadelphia v. New Jersey* 437 US 617 (1978); *Minnesota v. Clover Leaf Creamery Co.* 449 US 456 (1981); *Silkwood v. Kerr-McGee Corp.* 464 US 238 (1984); *Chemical Waste Management v. Hunt* 112 S. Ct. 2009 (1992); *Oregon Waste Systems v. Department of Environmental Quality Slip Opinion* 93-70 (1994); 1994 US Lexis 2659; *Commission v. Italy* 91/79, 1980 ECR 1099 (1973); *Titanium Dioxide* 1991 ECR 2867; *Scottish Red Grouse* Case C-169/89, ECR I-2143.

<sup>124</sup> This doctrine is in conformity with the free trade principles of Articles 30 to 34 of the EU Treaty which are dedicated to the promotion of free trade within EU member state territories, See also, Supra 122; Jackson et al (1995), Supra 91, at 544, fn. 10 and (1), under Notes and Questions, on the doctrine of mutual recognition.

<sup>125</sup> *Belgian Waste Case*, 2/90; ECJ, 9 July 1992.

<sup>126</sup> This second requirement is particularly relevant to the Basel and Bamako Conventions in this regard. In this vein, see also, proposal of this thesis that developing countries reject substances which are not deemed to be hazardous under Basel or Bamako, see Supra 116. For further discussions on trade and environmental issues as they arise in the EU, see generally, Van Calster (2000), Supra 91, 9-12, 17, 27-31; Petersmann, E-U *International and European Trade and Environmental Law after the Uruguay Round* Boston: Kluwer International (1995); Ziegler, AR *Trade and Environmental Law in the European Community* New York: Clarendon Press (1996); Schneider, G "The Impact of 1992 on EC Environmental Policy", *RECIEL: International Trade and the Environment Issue*, Volume 1, Issue 1, 1992; Ball, S and Bell, S *Environmental Law* Blackstone Press Ltd. 4<sup>th</sup> ed (1991), Chapter 4.

<sup>127</sup> Section 1.

<sup>128</sup> Section 3.

<sup>129</sup> Section 5(b); See also, Salzman, J "Seattle's Legal Legacy and Environmental Reviews of Trade Agreements", *Northwestern SLEL* (2001), Vol. 31:3, 501-548, for discussions on this law.

<sup>130</sup> <http://fpc.state.gov/6143.htm>

<sup>131</sup> See Nauman, T "US-Mexico Meeting on the Border Environment", *Americas Program: A New World of Ideas, Analysis and Policy Options*, June 2003 (Also available at [http://www.americaspolicy.org/citizen-action/series/07\\_encuentro.html](http://www.americaspolicy.org/citizen-action/series/07_encuentro.html), last accessed on 29<sup>th</sup> June 2003). Here, it is noted that at a NAFTA workshop this year, participants called upon the Mexican government to broaden its list of industrial wastes to be tracked under new mandatory reporting, so that Mexico can bring its Public Pollutant Release and Transfer Register up to par with those of the US and Canada.

<sup>132</sup> Supra 130.

<sup>133</sup> See "Indicators Implementation Task Force 1997", "1999 Priorities Report", 3.2, under NAFTA and the CEC, available at <http://www.ijc.org/boards/iitf/pr9799/innitiatives.html>, which discusses in detail, the specific format used in measuring progress in this regard. For more instances of the Committee's successes from this perspective, see: <http://www.nafta.org>. On NAFTA and the role of the NAAEC, see also, Kumar, A

et al in Werksman (1996), *Supra* 97, at 116-128, especially at 120 onwards. ) For further referencing on NAFTA's work in the environmental sphere, see for example, Wise, TA and Gallagher, KP "NAFTA: A Cautionary Tale", *Global Affairs Commentary*, 24 October 2002 (Also available at: [http://www.fpig.org/americas/commentary/2002/0210nafta\\_body.html](http://www.fpig.org/americas/commentary/2002/0210nafta_body.html)); Kublicki, N "The Greening of Free Trade: NAFTA, Mexican Environmental Law and Debt Exchanges for Mexican Environmental Infrastructure Development", *Columbia JEL*, Vol. 19, No. 1, (1994), 59-140, which addresses the environmental provisions of NAFTA; De Bellevue et al "The North American Free Trade Agreement: An Ecological Economic Synthesis for the United States and Mexico", *Ecological Economics*, Volume 9, No. 1, (1994), 53-71; Miller, C "NAFTA and Recycling: Opportunity or Threat?", *Recycling Times*, Volume 6, No. 2, 1, 9, (1994); Johnson, PM and Beaulieu, A "NAFTA's Green Opportunities", *JELP*, Vol. 1, No. 5, (1994), 5-15, which adopts an analytical approach to discussing the environmental provisions of NAFTA and NAAEC, while particularly emphasising the strengths and weaknesses of new treaties within the context of contemporary international and commercial law. See also, "NAFTA Spurs Toxics Inventory Report", in *Chemical and Engineering News*, Vol. 75, No. 35, September 1997, 26-30; Magraw, D "NAFTA's Repercussions: Is Green Trade Possible?", *Environment*, Vol. 36, No. 2, (1994), 14-20, 39, which dwells on the environmental provisions of NAFTA and its side agreements, reviews the new trade relationships and institutions by NAFTA and also, the probability of their enabling NAFTA to conform to green trade. Hopp, R "The New Era of Global Environmental Protection: Part III-NAFTA, GATT and the Sanctity of Free Trade", *JER*, Vol. 3, No. 4, (1994), 343-357; and Audley, JJ "Environmental Interests in Trade Policy: Institutional Reform and the North American Free Trade Agreement", *SSJ*, Vol. 32, No. 4, (1995), 327-360.

## **CHAPTER 5: DEVELOPING COUNTRIES AND TRADE IN HAZARDOUS WASTE**

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## **CHAPTER 5: DEVELOPING COUNTRIES AND TRADE IN HAZARDOUS WASTE**

*“...an imaginary American village is swept with mysterious maladies. Livestock die, birds desert the skies, fish disappear from the streams, and strange illnesses appear in humans. Roadside vegetation turns brown and withers as if devastated by fire. The strange stillness ... is not caused by witchcraft or by enemy action, but is brought about by the citizens who allow the chemical pollution of their own community.”<sup>1</sup>*

### **5.1 Introductory Remarks**

Over the last few decades, there has been a steady increase in the generation of wastes in developed countries and to a less extent, in developing ones. This rise and trend has resulted from increments in a variety of human activities, including manufacturing, agricultural, household, mining, chemical production and other similar processes. Industrial sectors in particular, which use renewable and nonrenewable resources in their activities, generate large volumes of hazardous waste as well as toxic pollutant by-products.<sup>2</sup> From case studies in Chapter 5.4 below, it could be said that the same holds true for other sectors. It must be borne in mind that during the second half of the twentieth century, widespread increases in globalisation and population patterns also necessarily suggest attendant rises in all forms of human activity.

While in 1947, it was estimated that global hazardous waste generation totaled approximately five million metric tonnes, today, industrialised countries produce about ninety per cent of the world's hazardous waste, which amounts to about three hundred to four hundred metric tonnes annually.<sup>3</sup> In the USA alone, hazardous waste generation has risen from nine million metric tons in 1970 to 247 million metric tonnes in 1984.<sup>4</sup> Of the 100,000 chemical substances utilised in commerce and industry, many appear as pollutants and contaminants in food, commercial products and the environment. Despite its inadequate facilities to treat waste, by 1989, Africa was importing about 50 million tonnes of waste from industrialised countries, a figure estimated to be equivalent to about 20% of the total waste generated in the latter group of countries.<sup>5</sup> According to a report by the UNEP, in the early 1990s, annual estimates of global hazardous waste generation totaled 400 million tonnes.<sup>6</sup> Of this amount, some 300 million tonnes were produced by the countries of the OECD, mainly from chemical production and mining industries for example.<sup>7</sup>

Housman et al provides some salient features of these increases in waste generating activities thus:<sup>8</sup>

In 1991 alone, emissions of toxic chemicals in the US into the air, water, land and underground injection wells amounted to 3.39 billion pounds;

- Soil degradation, plant damage, endangered food supplies, higher cancer rates and lower reproductive capacity, coupled with other health risks, have resulted from the emission of large volumes of industrial residue such as hazardous waste, acidic materials, toxic chemicals and heavy materials, into the environment;
- There is ample evidence to demonstrate that when human beings are exposed to toxic waste, there are rises in leukemia, kidney cancer and respiratory disorders within a community;
- Cleaning up toxic and hazardous sites has become very expensive in several countries. This process now exceeds a billion dollars;
- It is generally difficult to quantify the volume of hazardous waste, which is generated or traded across borders. This is due to the differences in various municipal systems, regarding the definitions of what qualifies as a "hazardous waste" and the lack of inadequate regulatory programmes;
- According to a UNEP estimation, every year, approximately 338 million tons of hazardous waste are generated globally.

Other pertinent facts regarding these estimates of hazardous waste generation are that:

- The majority of toxic waste is produced in developed countries. The validity of this claim is seen through studies such as the report by the UN World Commission on Environment and Développement which indicates that of the estimated 350 million tons of hazardous waste disposed of annually, 5-10 million tons are produced by developing countries.<sup>9</sup>
- Nonetheless, other industrialising countries are probably generating increasing amounts of hazardous waste as well. For example, owing to massive industrial development and

trade liberalisation, by 1990, Thailand was estimated to have generated approximately 1.9 million tons of hazardous waste and probably increased this amount fourfold by 2001.<sup>10</sup>

From the above, some analytical inferences can be made at this point. To begin with, it becomes obvious that although waste generation is higher in developed countries such as the USA and the newly industrialised countries including Thailand, developing countries are gradually confronted with the same sorts of problems, in the face of globalisation, population increases and industrialisation. Secondly, having to dispose of toxic waste is a costly venture in many countries as indicated, but more in the developed world than in the developing world. Hence, owing to the exorbitant costs involved in having to dispose of such forms of waste, in the past, certain industrial companies from developed countries have turned to developing countries, including the three case study countries of this thesis, as a possible way out for final disposal. It is important however, not to simply blame this on the governments of the first world, as has sometimes been the case, but on unscrupulous businessmen worldwide who sometimes flaunt the stringent environmental laws of first world countries and take advantage of existing problems in the third world.<sup>11</sup>

Hazardous waste then becomes a trading item of commerce in the international economic order. It must also be stressed that hazardous waste trade does not merely suggest dumping of these substances from the first to the third world. Among third world countries, these trends do exist, for example, from Philippines to Japan.<sup>12</sup> Furthermore, some forms of hazardous waste such as mercury and lead scrape may also be desired by the third world for recycling, thereby generating income and jobs. Many of these substances threaten the very existence of the ecological base and human health. Inadequate and improper management of these wastes unfortunately plunge human health and the environment into jeopardy. Hence, regardless of the fact that a hazardous substance may not *per se* be a pollutant, it only becomes so in the absence of proper management.<sup>13</sup>

Therefore, the three case study countries of this thesis and other developing countries need to sufficiently equipped with adequate, stringent, but realistic legal mechanisms, to regulate hazardous waste disposal and trade within their respective territories. This can be established through appropriate legal definitions of these substances, management of toxic waste

practices and taking of inventories, *inter-alia*, within the framework of these legal mechanisms. Such activities aid in properly managing and trading in hazardous waste, without inflicting any perils on ecological and human life, or creating trade barriers in this sphere. Herein lies the main challenge which confronts governments and regulatory mechanisms in these countries.

## **5.2 Legal Definition of Hazardous Waste**

### **5.2.1 (a) Background**

As indicated in the introductory chapter to this thesis, given the different uses to which items are put within different contextual situations, waste definition, to a large extent, is neither an easy nor a uniformed process. For instance, whereas A may dispose of an item which he/she does not need from the end cycle of a particular activity, such an item could be collected by B as the beginning of his/her activity, recycled and manufactured into a product which B can then utilise effectively. In this case, A's undesirable waste then becomes the source of a valuable item which is worthy of use to B. Owing to this, this thesis lends itself to adopting certain guidelines, in an attempt to define hazardous waste.

Regarding these guiding principles, the international viewpoints offered by the Basel and Bamako Conventions are firstly discussed. Subsequently, the municipal definitions of the three case study countries are examined, since this chapter concerns itself with policy and practice of the three case study countries, as far as toxic waste trade regulation is concerned. It is noteworthy that regarding the definition of these substances, important criteria which are used in this Chapter are the existing definitions provided by each country's laws and policies, the yardstick used by each country's officials who work on toxic waste, the classification of waste according to each country's laws and the treatment options which are used for each category of waste in each country. Finally but not the least, the general effects of waste on any given environment are also reviewed, with the aim of differentiating hazardous waste from other forms of waste.

### **5.2.1 (b) International Perspectives: Definition and Classification**

As discussed in Chapter 1.1.1, the Basel Convention defines waste as substances which are disposed of, intended to be disposed of or are required to be disposed of, in accordance with

the stipulations of municipal legislation.<sup>14</sup> This Convention then specifies disposal options according to operations for wastes, that is, those destined for final disposal, which are found in Group A of this Annex, and those for resource recovery, which are found in Group B.<sup>15</sup> This Convention also defines waste from the perspective of the hazardous characteristics possessed, in its Annexes I, II and III, depending on characteristics of waste to be controlled, those requiring special attention and the list of hazardous characteristics respectively.

Similar to the Basel Convention, the Bamako Convention defines waste as substances which have are previously, currently or in the future disposed of, in subject to the requirements of national legislation.<sup>16</sup> This Convention then defines hazardous wastes as any wastes which it specifies, according to those in Annex I, those not covered in Annex I but deemed to be hazardous under the laws of the exporting state, those which possess any characteristics contained in Annex II, those which are banned from the exporting state and those which are deemed to be radioactive and specifically excludes discharged wastes from the normal operations of a ship, in accordance with another international instrument.<sup>17</sup>

#### 5.2.2 South Africa

As far as toxic waste trade regulation is concerned, South African legislative policy attempts to define waste. This is done with a view to managing hazardous waste practices and disposal within this country. An examination of this definition is made here, to explore how such a definition can be particularly extended to regulate the importation and exportation of these substances, into and out of South Africa. The various definitions provided by the laws are discussed first, after which those provided by policy are also examined.

##### 5.2.2 (a) Definition

##### 5.2.2 (a) (i) Laws

As seen below, different Departments adopt various approaches to defining hazardous waste.

##### (i) Environment Conservation Act (Act 73 of 1989)

In conformity with this Act, waste is defined as:

“...any matter, whether gaseous, liquid or solid or any combination thereof, which is from time to time designated by the Minister by notice in the Gazette as an undesirable or superfluous by-product, emission, residue or remainder of any process or activity”.<sup>18</sup>

In 1990, the then Minister, acting in conformity with the authority bestowed upon him by this definition, classified waste thus:

“For the purposes of the definition of ‘waste’ in section 1 of the Environment Conservation Act 1989 (Act No. 73 of 1989), I, Gert Jeremais Kotzé, in my capacity as Minister of Environment Affairs, hereby identify as an undesirable or superfluous by-product, emission, residue or remainder of any process or activity, any matter, gaseous, liquid or solid or any combination thereof, originating from any residential, commercial or industrial area, which-

- (a) is discarded by any person; or
- (b) is accumulated and stored by any person with the purpose of eventually discarding it with or without prior treatment connected with the discarding thereof; or
- (c) is stored by any person with the purpose of recycling, re-using or extracting a useable product from such matter, excluding-
  - (i) water used for industrial purposes or any effluent produced by or resulting in such use which is discharged in compliance with the provisions of section 21(1) of the Water Act 1956 (Act No. 54 of 1956) or on the authority of an exemption granted under section 21(4) of the said Act;
  - (ii) any matter discharged into a septic tank or French drain sewerage system and any water or effluent contemplated by section 21(2) of the Water Act 1956;
  - (iii) building rubble used for filling or leveling purposes;
  - (iv) any radio-active substance discarded in compliance with the provisions of the Nuclear Energy Act 1982 (Act No. 92 of 1982);
  - (v) any minerals, tailings, waste-rock or slimes produced by or resulting from activities at a mine or works as defined in section 1 of the Mines and Works Act 1956 (Act No. 27 of 1956); and
  - (vi) ash produced by or resulting from activities at an undertaking for the generation of electricity under the provisions of the Electricity Act 1987 (Act No. 41 of 1987).”<sup>19</sup>

These two definitions of the Environmental Conservation Act of 1989 and the 1990 “ministerial definition” indicated above can create problems as well as discrepancies when defining waste and promulgating appropriate legislative mechanisms to deal with the management of waste. As the Minister is authorised to give his own definition of waste, waste classification then lies within his discretion. In such a situation, he then has unlimited leeway within which to manipulate. The significance of this is clear: the definition of waste then becomes a subjective issue, since what qualifies as waste from the perspective of one minister may not be judged to be waste by another Minister. One Minister would deem it expedient to classify certain categories of substances as waste, while paying particular attention to the financially beneficial aspects of these substances. Another Minister who wants to overprotect the environment, or restrict substances, using the argument that these may be environmentally contaminous, may add to the list of what constitutes waste. Another may delete and find his own substances. The resultant scenario is that various regimes of Ministers in turn witness various classifications of waste. Glazewski, for instance, points out that this definition excludes six categories waste, including mining waste.<sup>20</sup> Fuggle and Rabie also indicate the lack of clarity behind the Minister’s definition which does not include wastes that derive from agricultural activities; why the Minister excludes the matter set out in subparagraphs (i) to (vi) of paragraph (c); and whether the exclusions apply to the matter which is referred to in paragraph (c) only or whether it is intended that they should apply to the matter referred to in paragraphs (a) and (b).<sup>21</sup>

(ii) The Genetically Modified Organisms Act (Act 15 of 1997)

This instrument defines waste in the following terms:

“ “waste” means any matter, whether gaseous, liquid or solid or any combination thereof, which is, in the opinion of the person in whose possession or under whose control, it is, an undesirable or superfluous by-product, emission, residue or remainder of any process or activity in connection with genetically modified organisms”.<sup>22</sup>

(iii) Hazardous Substances Act (Act 15 of 1973)

Also noteworthy in the definition of wastes are other relevant definitions, such as “dump”, which has been identified in the Hazardous Act 15 of 1973 as follows:



“in relation to a grouped hazardous substance, means deposit, discharge, spill, release or cause or permit to be deposited, discharged, spilled or released (whether or not the substance in question is enclosed in a container), in such a place, under such circumstances or for such a period that the person depositing, discharging, spilling, or releasing or causing or permitting it to be deposited, discharged, spilled, or released, may reasonably be assumed to have abandoned it; and “dumping” as a corresponding meaning”.<sup>23</sup>

Botha, Fuggle and Rabie also provide terms such as rubbish, excrement, garbage and litter, which are synonymous with the term, ‘waste’.<sup>24</sup> In all these cases, waste is seen as a resultant item which is produced in the aftermath of a generated activity. The impression here is that such substances are produced by chance. It is further not indicated whether such by-products can be of further use or not. Take for example, the case of animal excreta which Botha, Fuggle and Rabie make mention of, as indicated above. Such substances are indeed waste, and yet, they can be purposefully utilised in agricultural farming, to fertilize manure. However, the last three definitions do not give an indication that wastes are any more useful.

#### 5.2.2 (a) (ii) Policy

##### (i) Department of Water Affairs and Forestry

This Department regards waste as the rubbish and unwanted items which people generally discard from their homes, offices and industries on a daily basis. Such material ranges from ordinary garbage in dustbins to large amounts of dry or wet industrial waste. From this perspective, simple everyday activities undertaken by human beings such as the purchasing and utilising of toothpaste and cassettes for example, lead to the generation of wastes. This derives from the fact that upon manufacturing these products, waste was created.<sup>25</sup>

In its *Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste*, the DWAF also adopts the definition provided for by the Environmental Conservation Act (Act 73 of 1989) discussed in Chapter 5.6.1.<sup>26</sup>

With regard to possible discrepancies which could arise from defining hazardous waste as discussed in Chapters 5.2.2(a)(i) to 5.2.2(a)(ii), it may be suggested at this point that a better approach might be to have a specific definition of waste in accordance with the terms

provided by Basel. This means selecting a group of materials which are not harmful to the environment of this country if properly disposed of, without necessarily making it too stringent as to ban any kind of waste altogether. For instance, lead scrape should be accepted. Then, the Minister and other relevant parties enact national legislation in accordance with these specified forms of waste.

#### 5.2.2 (a) (iii) Case Law

The definition of waste also brings to light, the South African case of *Cape Town Municipality v Bethnal Investments*, held in 1972.<sup>27</sup> The courts in this case strictly adhered to the terms provided for by the Oxford English Dictionary, through defining waste as “refuse matter; unserviceable material remaining over from any process of manufacture; the useless by-products of any industrial process; material or manufactured articles so damaged as to be useless or unsaleable”. This case further defined waste as an adjective which is “thrown away or aside as worthless, defective or of no further use during or at the end of a process”.<sup>28</sup> The emphasis and main characteristic feature of waste here, is that waste has no value and is an item that has been used to its fullest extent. The approach adopted by the courts in the 1972 case then appears to be different from that in the UK,<sup>29</sup> as the laws in this country also pay attention to the fact that one man’s waste may be another’s valuable product, giving value to waste and bringing to mind, the possibility of recycling waste for further use.

This approach of the South African courts in 1972 then conforms to the approach in the definitions enshrined in the South African Acts discussed above, because of the emphasis on the end-use of waste which has no value. The approach of the UK seems to be more appropriate for hazardous waste management in this country and could reflect in the relevant South African Acts and especially, the model law of this thesis. This is true with due consideration to activities of certain industries which import lead scrape waste in car batteries from countries of Africa and the SADC such as Botswana and Lesotho for recycling. This is demonstrated in Chapter 5.4.5 for example which deals with South Africa’s Fry’s Metals Company in this respect. For these exporting countries for instance, this lead is waste, and when imported into South Africa, it is so. However, such waste is inherently valuable, for upon being reprocessed and recycled, it becomes a useful substance again. In

Chapter 5.4, case studies on recycling other forms of waste, such as household waste, also back this claim. So, this sort of definition is significant and more realistic then.

#### 5.2.2 (a) (iv) Other Relevant Perspectives

For offices such as the BCRC, the DWAF and the DEAT in Pretoria, waste is hazardous material, but can in certain circumstances, be effectively recycled and manufactured into usable products. On the other hand, many environmental NGOs South Africa are of the opinion that owing to the inherent toxicological and ecotoxicological characteristics of hazardous waste, they should not be traded in, no matter the situation.<sup>30</sup>

From this emerge two approaches to defining hazardous waste within the South African context. The first is defining these substances from a dualistic viewpoint, namely, the imminent harm and financial implications of toxic waste. The second approach looks at waste from the angle that waste is simply waste and should be banned altogether. The second definition conforms to the approaches adopted by Ghana and Côte d'Ivoire.<sup>31</sup> On the other hand, due consideration must also be given to on how realistic this is, given the everyday needs of a country's citizens. It is important to emphasise at this point that in order for uniformity and facilitation of trading in these substances amongst the three case study countries and even amongst those of the continent, under NEPAD, waste be realistically defined to include the financial benefits which certain less hazardous kinds could generate. Due care must be given to the sort of environmental considerations which would be included in their management and recycling processes, so that the promotion of economic activity does not lead to the deterioration of the environment.<sup>32</sup> These proposals would apply to all African countries and harmonisation achieved hereby.

#### 5.2.2 (b) Classification

In terms of categorisation, South African legislation regulates many categories of waste. This is done in a generally haphazard manner, but includes a broad discussion of "waste" and "hazardous waste." Here, these classes of waste range from medical wastes emanating from hospitals and clinics, to household wastes, pesticides and chemicals, Class Y18 Residues arising from industrial waste disposal operations to Class Y29 mercury and mercury compounds.<sup>33</sup> In controlling these substances which possess different constituents from

each other, current South African law distinguishes waste into two groups, according to the degree of toxicity. This exercise is carried out with the aim of giving appropriate treatment and disposal options, as discussed in the ensuing chapter. This is because it would not suffice to use landfill requirements which are recommended for household waste, to treat more hazardous waste such as medical waste, lest the highly toxic substances in the latter case cause some toxic calamity.

In this vein, waste in South Africa is classified as: (a) General waste or (b) Hazardous waste.<sup>34</sup> Examples of general waste are domestic, commercial waste, certain industrial waste and building rubble. It may be disposed of on any landfill that is permitted in terms of the Environmental Conservation Act.<sup>35</sup> One crucial point about domestic waste is that though it may possess hazardous waste, this is normally in minute quantities. Hence, the classification of this waste as General.<sup>36</sup> In the absence of proper management, general waste could nonetheless pose a significant threat to the public health or the environment.<sup>37</sup>

The definition and classification of "hazardous waste" and especially, the categorisation of substances which qualify as such in this country, conform to international standards such as those included in UNEP's Basel Convention (1989), *UNEP's Code of Practice* (1993) and the *Guidelines for Hazardous Waste Management in Asia and the Pacific* (1986).<sup>38</sup>

South Africa's DWAF also classifies hazardous waste as:

"an inorganic or organic element or compound that, because of its toxicological, physical, chemical or persistency properties, may exercise detrimental, acute or chronic impacts on human health and the environment. It can be generated from a wide range of commercial, industrial, agricultural and domestic activities and may take the form of liquid, sludge or solid. These characteristics contribute not only to degree of hazard, but are also of great importance in the ultimate choice of a safe and environmentally acceptable method of disposal".<sup>39</sup>

In the light of the above-mentioned definition, hazardous waste possesses certain elements, which directly or indirectly pose a threat to human health or the environment by introducing one or more of the following risks:

(a) explosion or fire; (b) infectious, pathogens, parasites or their vectors;  
(c) chemical instability, reactions or corrosion; (d) acute or chronic toxicity;  
(e) cancer, mutations or birth defects; (f) toxicity, or damage to the ecosystems or natural resources; (g) accumulation in biological foodchains, persistence in the environment, or multiple effects to the extent that it requires special attention and cannot be released into the environment or be added to sewage or be stored in a situation which is either open to air or from which aqueous leachate could emanate.”<sup>40</sup>

Yet another definition provides that hazardous waste is waste that has the potential, even in low concentrations, to have a significant adverse effect on public health and the environment because of its inherent toxicological, chemical and physical characteristics. It excludes all general wastes.<sup>41</sup>

This claim holds true when one considers the intrinsic danger of POPs, which could be cited as examples of hazardous waste. Owing to their toxicity, persistent accumulation in food, animal and human tissues, and continued use in developing and developed countries alike, the international Stockholm Convention on POPs was adopted in 2001, as indicated in Chapter 3.4.4. This Convention aims to protect human health and the environment from the adverse effects of POPs, with due consideration to the precautionary approach as set forth in Principle 15 of the Rio Convention.<sup>42</sup>

Of the three case study countries, South Africa was the first to ratify this Convention, followed by Ghana and Côte d'Ivoire. This is logical as these three countries are fully geared towards the banning the importation of environmentally destructive substances. Côte d'Ivoire is also focused on completely banning the import of these substances and has thus ratified Stockholm.<sup>43</sup> As this Convention seeks to prevent the entry of very highly toxic substances such as POPs from harming human and environmental health, the fact that these three countries have ratified this instrument is therefore very timely.

Owing to its high probability of environmental harm, hazardous waste requires strict control and management.<sup>44</sup> These wastes may be disposed of in a hazardous waste landfill, under certain conditions.<sup>45</sup> In cases of doubt about whether waste is hazardous or general, the precautionary principle is applied. Here, it is advisable to assume that such waste is hazardous until the contrary is proved.<sup>46</sup>

In the light of all the above, the main observation about hazardous waste in South Africa is that they threaten the very existence of human, plant and animal life, and must be handled with great caution. Hazardous waste could be infectious, corrosive or poisonous. So that in certain cases, substances may not even be necessarily dangerous in themselves. However, upon decomposing or combining with other substances in the environment or air, there is the likelihood that they could produce dangerous substances. The definition of hazardous substances may be applicable in these circumstances as these substances then pollute the environmental health of a given territory or the world in its entirety.

After defining hazardous waste, the next step is to classify this kind of waste, in order to ascertain the level of risk posed by hazardous waste. This is done with a view to determining which method of treatment should be applied to gaseous, liquid and solid waste, according to their respective risk levels. This subdivision exercise must be in accordance with the SABS 0228 Code "The Identification and Classification of Dangerous Goods and Substances", which is a system for classifying hazardous substances for transport purposes.<sup>47</sup> In the Code, hazardous substances are given an identification number and divided into nine classes, namely: the Explosives, Gases, Flammable Liquids, Flammable Solids, Oxidizing substances and organic peroxides, Toxic and infectious substances, Radioactive substances, Corrosives and Other Miscellaneous substances.<sup>48</sup> Depending on the classification, the requirements for pre-treatment and disposal are appropriately established.

This policy basically requires that in managing hazardous wastes, tests and analyses be carried out in order to correctly identify any hazardous substance in the waste, the information needed for classification and hazardous rating, for instance, is the waste in question flammable, corrosive, reactive or toxic for example? What inorganic constituents, for example, arsenic, zinc, lead, mercury and organic constituents such as solvents, PCBs or

aromatics are present in this waste?<sup>49</sup> Does such waste contain infectious material? For instance, teratogen is said to be able to cause birth defects, carcinogens could potentially cause cancer and mutagen has the capacity to induce genetic mutations. If any of these substances are present in the hazardous waste, to what extent can they cause such harm? Furthermore, what are the inorganic constituents of such waste, for example, Arsenic, Zinc, Lead, Mercury and organic constituents such as solvents, PCBs or aromatics? The policy provides some means of carrying out these tests, such as Chemical Oxygen Demand (COD) and Dissolved Oxygen Demand (DOC). The tests further assess the effectiveness of any treatment, disposal or remediation of any programme and determine whether a waste generator, transporter, or treatment and disposal facility is conforming to the legislative requirements.<sup>50</sup>

#### 5.2.2 (c) Treatment /Options

From the discussions in this sub-chapter, it is clear that South Africa has carried out more work than the other two case study countries in this regard. However, this thesis concerns itself with toxic waste trade regulation and not toxic waste management. Therefore, discussions on the treatment options will be as brief as possible and will not include much information on the detailed processes involved in treating toxic waste.

Regarding the different treatment options for various categories of hazardous waste in South Africa, the guidelines for treatment and disposal were initially identified by the DWAF, which was responsible for the administration of waste sites. However, in 2003, the South African government passed the Environment Conservation Amendment Act (Act 50, 2003). This Act amends the Environment Conservation Act (1989) to enable the Minister of Environmental Affairs and Tourism, to *inter-alia*, provide for the transfer of the administration of waste disposal sites from the Ministry of Water Affairs to the Ministry of Environmental Affairs and Tourism.<sup>51</sup> Therefore, the operation of waste disposal sites, in conformity with the procedural requirements in this sub-chapter, falls within the mandate of the DEAT.

The South African DWAF identifies four steps for the management of wastes, by adopting the Integrated Waste Management policy, which entails the utilisation of cleaner production

concepts to minimise the amount of wastes which are generated by various activities.<sup>52</sup> In terms of this approach, step 1 entails the Cleaner Technology approach, that is, industries must use processes that make the least possible waste; step 2 comprises the Resource Recovery approach, that is anything that can be used again should be taken out of waste; The third step requires that some waste be compacted to take up less space and treated so that it is less dangerous. According to step 4, all waste remaining after steps 1 to 3 must go to a properly designed and operated landfill, that is, the Sanitary Landfill.<sup>53</sup>

In South Africa, the main options available for the disposal of hazardous waste are generally landfill and incineration. Just as in USA and Europe, incineration is more appropriate for organic wastes as this method destroys the waste, minimises risk and leaves a residual ash which must be landfilled.<sup>54</sup> However, owing to the high costs of incineration, landfill is the most common method of disposing of organic and inorganic hazardous waste in South Africa.<sup>55</sup> Incineration is the controlled combustion of waste materials to reduce these to a non-combustible residue or ash and exhaust gases, that is, carbon dioxide and water. The combustion of sulphur and chlorine containing wastes can generate some amounts of acid gases, such as sulphur dioxide hydrochloric acid, but these can be scrubbed from the gas stream prior to discharge to the atmosphere.<sup>56</sup>

Specific landfills, the H:H landfill and H:h landfill are designed for extremely toxic hazardous waste and less toxic hazardous waste respectively.<sup>57</sup> This must be legally permitted by the DEAT.<sup>58</sup>

Another option of treatment at landfill is the Co-disposal of General and Hazardous Waste at landfills which entails absorbing, diluting and neutralizing any liquids and providing a source of biodegradable materials in order to encourage any microbial activity that will assist in hazardous waste degradation.<sup>59</sup>

Land treatment is another means of disposing of waste. This method is mainly applicable to organic waste, especially, those from the petroleum refineries and textile industries. The main idea behind this methodology here is to rely on the natural capacity of soil and the



addition of micro-organisms to attenuate, disperse and biologically degrade hazardous substances.<sup>60</sup>

Of all these treatment options, there may not be any best method for waste disposal, according to the DEAT. This owes to the fact that landfilling, for instance, has its own problems. If a landfill is managed properly, it is closed. After that, there is no other way of using the land. Therefore, this is no sustainable way of using the land. Medical wastes and industrial hazardous waste pose a great threat to environmental and human health. In treating medical waste, syringes, plastics and bandages, have to be disposed of, for example. These substances contain chlorine. When incinerated, they react at certain temperatures and become toxins. If dumped in a landfill, they do not cause air pollution. It is only when they contain methane, a green house gas, that is when this gas will seep through the soil. There is a high possibility that methane can catch fire as it is hazardous and a greenhouse gas. Otherwise, generally, when waste is landfilled, it will begin to rot and seep through the soil, until the bacteria is produced.<sup>61</sup>

### 5.2.3 Ghana

#### 5.2.3 (a) Definition

##### (i) Ministry of Environment, Science and Technology (MEST)

In Ghana, there is no strict definition of waste or hazardous waste in any legal regime, except that the MEST relies on the definition provided for by the Basel Convention.<sup>62</sup> The offices such as the Ghana Atomic Energy Commission, Environmental Protection Agency and Ghana Standards Board which work on hazardous waste, do not have any fixed definition of waste, excepting that they handle and work on this substance, with due regard to its environmental hazards which it poses. Additionally, toxic waste is an integral part of industrial, agricultural and other activity.<sup>63</sup>

Therefore, while recommending the promulgation of a model law, it may be suggested that this law specifically includes a definition of hazardous waste and what it amounts to. This would serve as a source of easy reference and guidelines for ordinary people and those in business who wish to handle toxic waste, as well as government officials who are entrusted to work on toxic waste issues.

## (ii) Other Perspectives

The few offices who work on toxic waste also define this substance solely from viewpoint of its inherent harmful effects. Contrary to the case of South Africa above, there is no fixed law or policy paper defining this substance. No case law also exists which defines this substance in this regard. While defining toxic waste, the three case study countries, could consider the economic benefits which certain categories of toxic waste could also yield.<sup>64</sup> Such harmonisation of definitions would facilitate trading in toxic waste, amongst these three case study countries, the quantification of the volumes of waste generation and taking of inventories, and the eradication of trade barriers in such trade, thereby avoiding the rather cumbersome situation discussed in Chapter 5.1.<sup>65</sup>

### 5.2.3 (b) Classification and 5.2.3 (c) Treatment/Options

There is no legal instrument for accurately classifying hazardous waste, which leads to the issue of how each form of waste should be treated, according to varying degrees of toxicity. Though it has been indicated that guidelines exist for treating medical and mining waste, there are no clear guidelines for other forms such as household, industrial and agricultural waste.<sup>66</sup> Recycling is not common, but could be started in used batteries and electrical appliances for instance, with due regard to environmental guidelines which include the Basel/UNCTAD/WHO guidelines, for instance.<sup>67</sup> In this regard, it is highly recommended that Ghana follows the steps of South Africa, which uses its Water and Forestry Guidelines (1998) to stipulate accurate guidelines in the classification and treatment of hazardous waste. Ghana has no Ministry of Water Affairs and Forestry, and could conduct this exercise through its Ministries of Health and Agriculture. Though this exercise has not been conducted, in the advent of sustainable development and Ghana's increasing commitment to toxic waste trade regulation as well as other relevant issues in this regard, the MEST is to embark on this assignment within the foreseeable future.<sup>68</sup>

## 5.2.4 Côte d'Ivoire

### 5.2.4 (a) Definition

#### Laws

Similar to South Africa and Ghana, Côte d'Ivoire defines hazardous waste through certain laws. However, contrary to South Africa but similar to Ghana, there is no policy in La Côte d'Ivoire's which defines such waste.

#### 5.2.4 (a) (i) Loi No. 96-766 du 3 Octobre 1996 portant Code de l'Environnement (The Environmental Code is enshrined in Law No. 96-766 of 3<sup>rd</sup> October 1996)

Though this law does not define waste, contrary to the South African case and similar to Ghana in this sense, it does so as far as hazardous waste is concerned. Therefore, according to this law, hazardous wastes are solid, liquid or gaseous products, which pose serious threats and particular risks to the health and security of human beings, as well as the quality of the environment.<sup>69</sup>

#### 5.2.4 (a) (ii) Loi 75-633 de la Cour de Justice

In its work on toxic wastes, the Ministry of Environmental Affairs adopts the definition which this law provides for. Under this law, these substances are any end products of manufacturing processes, in solid, liquid or gaseous form, which can contaminate human health or the ecological base.<sup>70</sup>

From these viewpoints, it is clear that similar to the case of Ghana and contrary to South Africa, in this country, toxic waste is defined solely with regard to the environmental perils which it inflicts and not the financial benefits which it could yield. Hence, toxic waste is also perceived as a substance in its final form, and which cannot be recycled.

### 5.2.4 (b) Classification

The Ivorian Ministry of Environmental Affairs provides that in this country, toxic waste can mainly be classified as emanating from many sources. These are medical waste, processes involving wood preservation, research in laboratories, residual products from refineries, distillation, incinerated ashes from household waste, production processes involving metal surfaces and plastic substances, as well as other manufacturing activities. The Ministry

emphasises the fact that regardless of the origins of waste, the common characteristic feature to them is that they are in gaseous form, for example, chlorine, nitrate vapour or fluorine, solid form or ashes, that is, iron oxide and soot.<sup>71</sup>

#### 5.2.4 (c) Treatment/Options

In Côte d'Ivoire, there is a serious lack of administrative capacity for treating different forms of waste. Compounded with this, the country's laws do not provide any means for treating hazardous waste. The Ministry of Environmental Affairs opines that owing to the precarious financial situation of this country, it does not possess sufficient mechanisms for treating hazardous waste. So that, the only available means at the moment is incineration. Through this method of waste disposal, toxic waste is simply burned in an environmentally sound manner, and not recycled for further use.<sup>72</sup>

#### 5.2.5 Effects of Waste on the Environment in General

While defining hazardous waste, as distinct from other forms of waste and any other substance for that matter, the effects of such waste on any given environment are now reviewed, as suggested in Chapter 5.2.1(a) above. To this end, this thesis notes that the complications associated with waste generation are many. Firstly, there is the likelihood that waste may catch fire, explode or release oxygen, increasing the risk or severity of fires. This applies especially to chemicals. This hazard is particularly serious where wastes have been dumped in areas where people live, or when it poses a threat to workers who must handle waste.

Furthermore, the bacterial content of waste can combine with gaseous substances such as hydrogen from water or carbon dioxide and oxygen from the air, or cause dioxins to cause atmospheric, soil and water pollution.

According to a study by Grover-Kerkvliet, on being exposed to heavy metals, human beings are likely to suffer from developmental retardation, various cancers and kidney damage. This study also points out that when exposed to high levels of mercury, gold and lead, human beings could develop symptoms of auto-immunity, in which the immune system starts to attack its own cells, mistaking them for foreign invaders.<sup>73</sup> In several other similar studies,

Goyer reveals that lead exposures can significantly reduce the Intelligence Quota of children.<sup>74</sup> In some countries, the removal of lead from petrol has led to reductions in heavy metal emissions, ameliorations in wastewater treatment and incinerators, as well as improved industrial technologies. Further tremendous improvements could be achieved if the available technologies were more widely applied.<sup>75</sup>

Then again, industries such as the electroplaters who do chrome and other plating onto metals, as well as bicycle manufacturers, who use many toxic paint solvents and coatings, generate waste. Upon being carelessly discarded, they combine with toxic and hazardous substances from our neighbours to create a real danger to health and the environment. Some of the wastes may not be hazardous when produced, but upon decomposing or reacting in the environment, they become toxic, with the characteristics indicated above.<sup>76</sup>

Additionally, the natural tendency of hazardous waste to cause foul stench and noxious odours, in the absence of proper management and proper disposal, is a reality, which can not be overlooked. This is especially true in treating wastes such as rotting and already- rotten food, medical and poisonous waste.<sup>77</sup>

From the above-mentioned, as the UNEP posits, the impacts of exposure of toxic chemicals and hazardous waste can be exceedingly damaging to human and environmental health.<sup>78</sup>

On the other hand, if properly managed, waste can also have a positive impact on the environment, by generating considerable amounts of income from recycling, for instance, to resolve other environmental problems.

### **5.3 Factors Responsible for the Imports of Hazardous Waste**

#### **5.3.1 (a) Factors Generally: Developing Countries**

The main factors here lie in the promotion of economic activity, lax and inefficient laws, acute staffing shortages, lack of adequate penalties and insufficient public enlightenment. These are evident through the discussions and concrete examples cited below. However, since this Chapter dedicates itself to the three case study countries in particular, more emphasis will be placed on these countries after considering the situation in developing countries in general.

Of the many factors indicated in the preceding paragraph, the main rationale for the importation of toxic waste from the first world into South Africa and other developing countries lies in economic motives, the financial constraints faced by these countries and the consequent desire for monetary gains. Confirming this point, Lipman also provides an extract from a World Bank memorandum on this matter: "...the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable and we should face up to that".<sup>79</sup> It has been estimated that waste disposal/trade is currently a big and profitable business which can yield from \$200 a ton to around \$1000 a ton. In the case of extremely poisonous materials like the PCBs, it can yield as much as \$3000:00 (US) per ton.<sup>80</sup> Hence, for many countries of the third world who, as indicated, are afflicted with bleak and abject conditions of impoverishment while being saddled with exorbitant levels of foreign debt, the temptation of importing these substances into their territory in return for financial reimbursement has sometimes been an attractive and an even desirable venture.

In this vein, one writer also states that the potential financial gains from waste dumping may be too tempting for many, mindless of the resultant environmental perils that the population of a country could suffer from. This was clearly demonstrated when Benin's president openly declared his country's willingness to accept such waste during the Lomé negotiations, between the EU and ACP countries.<sup>81</sup>

Despite opposition from the governments of Benin's immediate neighbours, Togo and Nigeria (Togo shares a border on the west with Benin, and Nigeria shares a border to the East) that the transboundary movements of such hazardous material could seep into the territories of these two countries, Benin remained resolute in its decision to import this commodity in exchange for monetary gains.<sup>82</sup>

"Third World Nations see toxic waste trade as a source of much-needed cash...Guinea-Bissau would have earned its entire gross domestic product from toxic waste trade", another author provides.<sup>83</sup> Governments and certain business officials of other African, Caribbean and Pacific countries have at one time or the other, also imported or contemplated the

importation of some of these substances into their respective territories, during the course of international trade.<sup>84</sup>

While toxic trade is indeed a lucrative venture which can generate a considerable degree of financial benefits for developing countries, firms in developed countries find it cheaper to export such waste into developing countries. For example, it is reported that in a proposed contract to import five million tons of toxic waste into Benin, the British company shipping this waste would have paid \$140:00-\$160:00 (US) million per ton to dispose of this waste in Britain; on the other hand, it would cost US \$2.50:00 (US) per ton to do so in Benin.<sup>85</sup> Another observation is that while it costs US \$2.50:00 (US) per ton to dump hazardous waste in Africa, in Europe, it costs approximately \$250:00 (US) per ton.<sup>86</sup> Such statistical proofs are obviously illustrative of the fact that it is hundred times cheaper to dispose of wastes in Africa and some other developing countries, as compared to the first world.<sup>87</sup>

#### 5.3.1 (b) Prevalent Factors within the Three Case Study Countries in Particular

##### 5.3.1 (b) (i) Promotion of Economic Activity

In 1989, the South African government proposed to enter into a waste incineration project for the importation and processing of both foreign and local waste. This was to derive much income. This project was to have been situated in Alexander Bay, that is, in the Northern Cape vicinity. Owing to the potential harm which this project would have caused to the atmosphere and health of the populace in the neighbouring environment, this proposal was met with a great deal of opposition from the public. In the final analysis, the government had to abandon this venture.<sup>88</sup>

In the same vein, this country's Fry's Metals Company imports lead scrape from some other African countries for recycling and has indeed confirmed that such trading activity yields great financial benefits. In the cases of proposed imports of parageothitie from Australia to be incinerated in Sasolberg, a town in South Africa's Free State province, this would have yielded lots of financial success.<sup>89</sup>

Similarly, Ghana's Tema Oil Refinery, Lube Oil, Valco and Ashanti Gold Fields engage in these activities primarily for the promotion of economic activity.<sup>90</sup> So that from this perspective, the proposals being made in this thesis for the management and recycling of household waste, could not only be a viable source of job creation, but also, income generation. This could be boosted by more governmental assistance. In the case of the proposed imports of PCBs, cadmium and other dangerous substances from Italy in 1994 and plastic granules in 1988, these were also motivated by economic considerations.<sup>91</sup>

Furthermore, the importation of crude oil, butane and other substances from Nigeria by Côte d'Ivoire's Société Ivoirienne de Raffinage, for reprocessing and sale is motivated by its viable source of income. For example, from 1995 to 1996, these operations yielded about 9.8 billion CFA and from 1996-1997, about 8.3 billion CFA.<sup>92</sup> However, this country's projects for treating PCBs and medical waste are remarkably geared towards the final disposal of these substances, and not for recycling purposes. This is because in spite of the financial benefits which could accrue from importing such substances and recycling them, this country deems it prudent to import much less toxic waste such as hydrocarbons, in crude oil, for refinery, and export, and simply avoid trading in more toxic waste across borders. This is evident from the discussions in Chapters 5.4.15.

### 5.3.1 (b) (ii) Marginalisation of the Poverty-Stricken

In addition to the pressing need to derive monetary gains from waste trade, there seems to be a natural inclination for worldwide governments to utilise poverty-stricken territories as a dumping ground for waste. Marbury characterises this phenomenon as "environmental racism".<sup>93</sup> Regarding environmental racism and marginalisation, the claim that first world countries are endowed with higher environmental standards in comparison to those of the third world generally holds true. On the other hand, a considerable degree of attention must be paid to the very interesting point that certain parts of these first world countries have sometimes possessed less stringent environmental standards and consequently, have had their residential neighbourhoods as dumping grounds. More often than not, this has been the case of marginalised, disadvantaged and impoverished minorities. Marbury's example from the USA could perhaps be discussed at this point.



In 1982, he indicates, the state of North Carolina decided to place a landfill for disposing of the highly toxic substance, PCBs, in its Warren county whose residents are mostly black and poverty-stricken.<sup>94</sup> This led to massive public pressure and thence, a governmental regional study on the socio-economic conditions of the residents in the surrounding communities. The study confirmed *inter-alia* that the likelihood of minorities to reside in communities with an off-site commercial hazardous waste facility is approximately five times higher than to live in a community without one”.<sup>98</sup>

The following examples can be cited as cases in point, regarding the three countries being discussed and the issue of environmental marginalisation. In South Africa, the predominantly black and coloured areas such as Hillbrow, Soweto, Umlaas Park near Germiston and Kayelitsha in Cape Town, have for many decades witnessed massive dumping of wastes.<sup>99</sup> In Katlehong on the East Rand, substances such as blood bags and other medical waste have been dumped. In Katlehong township, cows have been found to be grazing on a rubbish dump where toxic waste was piled.<sup>100</sup> Leaking drums containing organic and inorganic lead, cadmium, chromium and mercury landed on the doorsteps of squatters, as a result of dumping 6 000 drums of toxic waste in Pietermaritzburg.<sup>101</sup> Furthermore, in the South African community of Stinkwater between Brits and Hammanskraal, which is composed of predominantly poor people, it has been observed that over the years, every street and every corner has been replete with litter.<sup>102</sup> It was a seemingly hopeless case, for no waste removal services operated in this territory and “The community had no way of getting rid of its own waste”.<sup>103</sup> In stark contrast, it is difficult to envisage a situation whereby affluent areas such as Constantia in Cape Town, Craighall Park in Johannesburg and Waterkloof in Pretoria, among other wealthy communities, would be subject to such practices.

Similar trends prevail in other parts of Ghana. While poor areas such as Nima and Chokor in Accra have had their territories used as dumps, in affluent areas such as East Legon, this is unimaginable. Within other regions of the country such as Kumasi, Sunyani, Takoradi and Bolgatanga, and throughout poor villages such as Kwaaprow and Apewosika in Cape Coast, the normal trend is that the very impoverished neighbourhoods are saddled with waste and garbage, while the richer parts of these towns, are free of such waste.

In Côte d'Ivoire, all forms of waste have been stockpiled in the poor neighbourhoods. In poverty-stricken parts of Abidjan, especially, this poses very big problems. It is particularly very difficult to control waste. For instance, in Abidjan, an area such as Bingerville and certain villages such as Blokosso and Anono face problems of having to dispose of accumulated waste. Here, all categories of waste are dumped in a haphazard fashion. On the other hand, in the wealthy areas such as Cocody in Abidjan, such a situation is not conceivable. In this country, recycling is not common, just as in Ghana. Therefore, comparatively speaking, South Africa is ahead of the other two countries in this sense. It is noteworthy that in Côte d'Ivoire, this problem gets more intensive from the bigger towns to the smaller towns. For example, though slums in parts of Abidjan, Bouaké and Yamoussoukro face this problem, these internationally renowned Ivorian cities are better off, when compared to other towns such as Korhogo in the north, Daloua between the West and South, Abengourou in the East and Bondoukou.

It could be suggested that since recycling has been started in South Africa as opposed to the two West African countries, the latter learn lessons from the example set by this country. This could be enhanced through collaborative correspondence and meetings from relevant officials and consultants in the three countries, as well as those of the region. Lessons could be borrowed and bent from South Africa in particular. By so doing, recycling could also begin in Ghana and Côte d'Ivoire, with sufficient experts in this field to manage these substances more effectively. With this kind of situation, a departure is made from stockpiling rubbish, to recycling and trading in it. This continues until a time when the ambitious though not impossible aim of intra-African trade in recycled waste becomes possible, within the new advent of NEPAD and the continent's deeper commitment to regional integration. Furthermore, one strong argument in favour of recycling rubbish at the municipal and sub-regional levels at least, would be the greatly beneficial advantage of deriving methane gas from rubbish recycling, for cooking in domestic homes. In Brazil for instance, recycling rubbish has been said to benefit numerous Brazilian homes.<sup>104</sup> In the three case study countries and others within Africa, firewood and polluting high sulphur coal are often used for cooking, especially in the rural areas. While the use of firewood could lead

to the cutting of trees and deforestation, the use of coal could also cause pollution in these countries. Hence, this proposal could serve as a worthy substitute.

### 5.3.2 Plethora of Laws and Departments, and Lack of Co-ordination between Relevant Governmental Departments<sup>105</sup>

#### 5.3.2 (a) General

Existing administrative deficiencies within environmental affairs in South Africa, Ghana and Côte d'Ivoire have also contributed to the illegal importation of hazardous waste into their territories. These are evident through the incoherence in organisation, lack of co-ordination within the multitude of administrative agencies which are entrusted to tackle environmental problems, many less stringent environmental laws, the existence of fragmented laws and ineffective law enforcement. It must be emphasised at this point that very often, the problem is not the law in itself, but lack of enforcement capacity.

#### 5.3.2 (b) South Africa

As far as South Africa is concerned, the following aspects of waste management are governed under different laws by the various ensuing government departments:

Under the Environment Conservation Amendment Act (2003), the Environmental Affairs Department grants permits for waste disposal sites.<sup>106</sup> The DEAT is entrusted with the identification of activities,<sup>107</sup> overseeing the Basel convention, regulations for collection and publishing environmental impact reports, under this Act.

Surface and ground water quality management from waste as well as the minimisation of waste in managing effluent impacts is governed by the DWAF, under the Water Act (Act 54 of 1956).<sup>108</sup> The National Water Act (Act 36, 1998), deals *inter-alia* with pollution prevention and resultant pollution of water resources from an accidental spilling of a harmful substance.<sup>109</sup>

South African metro and local councils are entrusted with powers and duties pertaining to the identification, establishment, operation and control of waste sites, under the Local Government Transition Act (Act 209 of 1993).<sup>110</sup>

Pursuant to the Atmospheric Pollution Prevention Act (Act 45 of 1965), the DEAT is responsible for the regulation of a scheduled process-prevent and control of air pollution from chemical processes and non-hazardous waste incineration plants and waste sites, as well as the control of dust from industrial activities<sup>111</sup> which would for the purposes of this thesis, include landfill.

The Health Act (Act 63 of 1977) empowers the Department of Health to make provisions which are geared at regulations controlling a number of health-related activities of solid or liquid waste. This Act also authorises this Department to ensure that local authorities have responsibility to maintain their district in hygienic conditions. These powers also relate to sewerage purification and sewerage sludge treatment, storage, processing, utilisation and disposal.<sup>112</sup>

Registration processes for hazardous chemicals such as farm feeds, agricultural remedies, stock remedies, sterilizing plants and pest control operators, which are used in Agriculture, and processes pertaining to their control and importation are regulated by the Department of Agriculture under the Fertilizer, Farm Feeds, Agricultural Stock Remedies Act (Act 36 of 1947).<sup>113</sup>

Under the Hazardous Substances Act, the Department of Health grants permission to produce, acquire, dispose, import or export, for instance, Group IV hazardous substances (Act 15 of 1973).<sup>114</sup>

The Department of Labour oversees matters pertaining to the Occupational Safety Health Act and National Occupational Safety Act (Act 85 of 1993) which requires employers to ensure employees including taking such steps as reasonably practical to eliminate or mitigate any hazard or potential hazards to the safety or health of employees or before resorting to protective equipment.<sup>115</sup>

Under the National Road Traffic Act 1996 (Act 93 of 1996) the Department of Transport includes packaging, transportation of dangerous goods such as hazardous waste and chemicals.<sup>116</sup>

Meetings and research activities with the DEAT, Minerals and Energy, Agriculture, Water Affairs and Forestry, Health, Trade and Industry, the Basel Secretariat, and NGOs such as Earthlife Africa and the EJNF have also confirmed these weaknesses and the above-mentioned, as follows:

In spite of the collaboration between Provincial and National Departments, as well as other Departments of the Basel Committee, which meet to discuss when there is a request for permits for the importation of wastes into the country, there is still some degree of disorganisation in these and other Departments. Hence, when it comes to the issue of hazardous waste importation, there is the necessity for more collaboration.

Linked to the above is the problem of fragmentation of legislation which deal with hazardous wastes in South Africa, as diverse government departments are entrusted with the responsibility of controlling and managing wastes. While the control of soil quality (including the use of pesticides) is handled by the Department of Agriculture, air pollution issues fall to the DEAT. Furthermore, the role of these different departments in monitoring these issues is not clearly defined. The required coordination between them is also lacking, with difficulties in institutional arrangements from National to Provincial Government.

With this kind of situation, for instance, a truck loaded with hazardous wastes turns over and has an accident on the highway, there is the question of which of these departments should assume responsibility for this, as their roles are rather ill-defined. This effectively causes delays in dealing with toxic waste management. With different authorities dealing with the same issue, complications could sometimes occur, and for instance, exporters of waste could successfully avoid fulfilling one or another of their obligations under this rather incoherent structure of rules and liability thereon. It is conceded that for more efficiency and uniformity, the regulation of toxic waste importation and exportation, in the anticipated legislation, could still be entirely assessed under different authorities. However, the emphasis

is that they should really collaborate, to the fullest extent possible, with each other, so that there is no means of escaping these laws, on the part of industries, companies and the populace.

The Department of Agriculture also has a function to perform when it comes to pollution resulting from agricultural practices, which is an environmental problem.<sup>117</sup>

Collaboration is also needed between the DEAT and the local community, to enhance environmental objectives including the regulation of waste trade. Upon realisation of this and the fragmentation and incoherence of hazardous waste laws which include toxic waste trade, in 1994, the DEAT initiated the Law Reform Process, using the Parliamentary decree that allowed South Africa to ratify the Basel Convention in 1994. This Process initiated legal auditing to review the existing legislation on hazardous waste and other environmental issues for that matter. Furthermore, it conducted this exercise with a view to improving upon these laws. As a result of this exercise, a Draft Waste Bill is being developed internally, with a special chapter which will be devoted to the importation of hazardous waste. The waste chapter was developed in 2002. The process has not been made available to the public yet. However, it is hoped that once the whole process is completed, the public will be made to know of it.<sup>118</sup>

This exercise is important because weak legislative mechanisms in administering hazardous waste importation would naturally pave way for all manner of catastrophic toxic events in South Africa and other countries. Thus, even in the first world Belgian city of Wallonia, owing to lax legislation and comparatively low dumping costs, it was possible to negligently dump a massive amount of waste from other regions. This resulted in a significant increase in foreign waste as well as a damage to the environmental health of the local population and the surrounding populace of Mellery, a village about 35 kilometers south of Brussels.<sup>119</sup> South Africa, the two other case study countries and other developing countries could learn from this experience to avoid such a situation.

Strictly speaking, on the issue of the multitude of laws, the fact that there are many laws dealing with the regulation of hazardous wastes makes administration rather difficult. This is

particularly true with due regard to the various issues which arise in this regard. For example, the toxicological and ecotoxicological characteristics of these wastes lie in the realm of environmental law; the health and safety of workers relate to environmental, labour and tort law issues; the health and environment of the surrounding population and penalties pertain to criminal, environmental and administrative law; the sort of waste involved, for instance, if it were some fertilizer or other from the chemical industry, would fall under the Department of Agriculture; and the characterisation of chemical hazards of waste naturally falls to the Department of Health.

What is missing in this context is the need for a more collaborative, co-operative and a co-ordinated approach amongst these Departments, as well as NGOs, the local and provincial governments. The government might also contemplate the possibility of instituting one central government agency in the DEAT, that is, the Department of Waste Management, which, as its name suggests, will be entrusted with the sole responsibility of enforcing toxic waste matters. The roles of each Department should also be clearly defined. Many meetings could be organised every now and then, for instance, once every month, to assess the status of these issues. Whenever there is a request for the importation of such substances into South Africa, there should be inter-Departmental discussions, for example. That and the consequent free exchange of information here, would enable the government to arrive at a concrete and common solution to problems, when they arise. In this regard, the establishment of the proposed Inter-Agency Permit Scheme is most timely.<sup>120</sup> Such a mechanism could effectively facilitate the implementation of toxic waste regulations in a coherent manner. This will be through its proposed functions such as granting or refusing toxic waste import and export permits, being the focal point at municipal level for dealing with toxic waste trade issues within the general framework of trade and environmental matters, reporting to the WTO Committee on Trade and Environment on these issues, liaising with the Dumpwatch and BCRCs and performing other relevant functions, as highlighted in Chapter 6 Article 3, of this thesis on proposals for regulatory reform.

### 5.3.2 (c) Ghana

As far as Ghana is concerned, there is no fixed law regulating toxic waste trade. Furthermore, the same problems of lack of legal enforcement capacity and collaboration

between relevant governmental ministries working on this matter exist as in the case of South Africa. However, many more fragmented pieces of legislation exist for regulating the importation of certain categories of hazardous waste. For example, the 1959 Petroleum Regulations govern the importation of petroleum, the Prevention and Control of Pests and Diseases of Plants Act 17 (1965) regulates the importation of pesticides and the Explosives Regulations L.I. 666 (1970) covers the importation of explosives.<sup>121</sup> For more uniformity though, it may be commendable to enact a single law, as this country has ratified the Basel Convention and its ban, to conform to its commitments herein. In this uniform law, all aspects of hazardous waste will be covered, be it hydrocarbons in petroleum, mercury, lead scrape for batteries and so on. Through this, it also becomes easier for prospective importers, exporters and ordinary persons to consult these laws for easy reference, before engaging in these shipments.

Furthermore, there is a serious lack of collaboration between the various offices such as the GAEC, MEST, Ghana Standards Board, Ministry of Trade and Industry and the few environmental NGOs which work on toxic waste trade regulation. For instance, the EPA in the MEST, is the principal ministry for implementing legislation which regulate the management of chemicals and generally control pollution, as well as other environmental problems, which *inter-alia*, result from mismanagement of chemicals and toxic waste in the country.

The Ministry of Employment and Social Affairs ensures that workers are guaranteed maximum protection from the potential hazards of chemicals. Within this Ministry, there are inspectors who ensure that the provisions of the laws pertaining to occupational safety and health are abided by.

The Ministry of Food and Agriculture is relevant in toxic waste management, as it has established a Department of Plant Protection and Regulatory Services (PPRSD) which provides training to farmers on the safe use of pesticides.<sup>122</sup>

Another important ministry in the regulation of toxic waste in Ghana is the Ministry of Mines and Energy. Through its Mines Department, this Ministry is responsible for the



implementation of the laws enshrined in the Mining and Minerals Law, as they relate to health and safety in the mining environment, and also, monitors the use and storage of explosives which are utilised in this sector.

The Ministry of Trade and Industry ensures that under the Imports and Export Regulations,<sup>123</sup> it grants licenses prior to the importation of goods specified in the second schedule which includes a number of chemicals.

The Ministry of Health, as part of the Pesticides Technical Committee, is important in ensuring that the occupational health of workers who could be exposed to chemical hazards and their safety are guaranteed. It must also be borne in mind that narcotic drugs can only be imported and exported only by the Minister of Health who then grants the appropriate license in this regard. It may be suggested at this point that such substances be extended to cover a wide range of chemicals, which are toxic and must not be limited to narcotic drugs alone. Furthermore, this must also be carried out under the proposed Inter-Agency Permit Scheme of this dissertation.<sup>124</sup>

Such co-operation, it must be stressed however, exists to a great extent between the relevant FAO and UNDP country offices. In Ghana, a Hazardous Chemicals Committee has been established by the EPA. This Committee comprises the Ghana Standards Board, GAEC, Ghana Cocoa Board, Crops Services Department of the FAO, Veterinary Services Department of the Ministry of FAO, three officers from the Agency and three other persons who should have special knowledge and experience in toxic chemical management.<sup>125</sup> Though agencies such as the Ghana Standards Board and the GAEC are abreast of developments relating to the importation and exportation of pesticides, the main thrust of the work lies with the EPA and the MEST which possess much more information on the regulation of pesticides in this country. It is reasonable that every pertinent detail about the regulation of pesticides under this Committee be made available to each member. A Department of Waste Management could be established within this Ministry, as indicated in the case of South Africa, in Chapter 5.3.2(b). It is also hereby recommended that this Committee functions as the same kind of Inter-Agency Permit Scheme which has been proposed for the case of South Africa above, for the purposes of ensuring co-operation

when administering the stipulations of the model law on toxic waste when this is in force. Furthermore, it may be desirable that an official from the Ministry of Trade be a part of this Committee, as the model law deals with regulating not just the management of toxic waste, but also, the importation and exportation of these substances.

#### 5.3.2 (d) Côte d'Ivoire

In Côte d'Ivoire, the Ministère de l'Environnement is the main state agency which administers toxic waste regulation. In spite of the existence of an Inter-ministerial committee, it is only this Ministry which basically provides adequate information on trends involving hazardous waste in this country.<sup>126</sup> An application for the importation of less toxic waste such as hydrocarbons in crude oil, has to be authorised by this Ministry. Similar to the case of Ghana above, this committee could be seen as fulfilling the role of the proposed Inter-Agency Scheme for South Africa. This would be in terms of more information-sharing and exchange to be effected by members of the committee, in collaboration with others such as the Ministries of Agriculture, Trade and Health. Another function which this scheme would perform would be to determine under what conditions such imports and exports may be permitted or not.

Furthermore, given the hazards involved in these substances, it may be advisable for a special central government agency, that is a Department of Waste Management, to be established as part of the Ivorian Ministry of Environmental Affairs. In essence, such a mechanism will perform functions which are similar to the proposed ones in the cases of the other two case study countries discussed in Chapter 5.3.2(b) and (c) above. This could actually help avoid protectionism in situations where such substances could otherwise be imported. This would actually serve as a boost to the requirement of this country's *Loi 96-766* that public authorities, international institutions and defence mechanisms co-operate to protect the environment at all possible levels.<sup>127</sup>

South Africa is more adequately equipped with NGOs such as Earthlife Africa, Groundwatch and EJNF, more Institutes and Universities throughout the country. These agencies have sometimes acted as "watchdogs" in monitoring illegal practices of toxic waste, including detecting illicit imports or potential imports of these substances from other

countries here. In South Africa, within the cities of Durban, Pietermaritzburg, Johannesburg and others, these groups are alert and help monitor illegal shipments. Institutes and groups in these areas can also help regions in other parts of the country monitor their waste more prudently. This could complement the functioning of the model law. However, the two other case study countries need more of such agencies, which should not just be concentrated in Abidjan and in Accra, but throughout parts of the country, desirably, in the *border towns* of San Pedro, Sassandra, Grand-Bassam, Bondoukou, Odienné and Buma in Côte d'Ivoire. In the case of Ghana, such agencies could be located in Bolgatanga, Takoradi and Aflao for example, to closely and effectively detect such potential illegal shipments and carry out other necessary work on toxic waste, involving the submission of relevant audits and information to the national authorities in this regard.

In order to facilitate the harmonious balance of trade and environmental objectives as they touch on toxic waste trade, it is also proposed that the Inter-Agency schemes in the three case study countries and others within the continent co-operate with each other on a regular basis, in terms of information exchange and other relevant matters regarding toxic waste trade regulation.

### 5.3.3 Lack of Capacity

Compounded with the aforementioned problem in the administration of hazardous waste imports into the three case study countries, the number of experts, level of capacity-building and training resources in this field are woefully inadequate. At the moment, it has been estimated that South Africa lacks enough environmentally trained workers to assist in the resolution of the country's environmental problems, and hazardous waste management issues, for that matter.<sup>128</sup>

Ghana and Côte d'Ivoire also face similar problems, especially in the light of financial setbacks, which preclude officials from being sufficiently paid. This makes undertaking such assignments at the municipal levels and in toxic waste matters rather unattractive, meaning that people do not aspire to work in this area. To this, the Ministry might consider prioritising these issues, presenting financial statements, with clear indications of the points where budgetary constraints are faced, to government.<sup>129</sup>

In Ghana, it must also be stressed that even where there are officials, sometimes, they are not adequately trained. This holds true, in view, for example, of the Kennedy Round 2 situation, where toxic waste is imported from China and Japan in incomprehensible language, only to be discovered later on that these substances are obsolete.<sup>130</sup> For the purposes of the sustainable development, preventive and precautionary principles, *inter-alia*, this is really not good enough and such circumstances must be avoided. This can be done through training these officials, as indicated in this chapter and also through a continued participation in the activities of the BCRC, as discussed in Chapter 3.4.1(f)(ii). This enhances social progress as society then becomes adequately endowed with more skilled personnel who ensure that the right forms of toxic waste are imported and exported, thereby arriving at economic prosperity and environmental safety. With these factors, sustainable development is attained.

In the case of Côte d'Ivoire, such problems have led to the indiscriminate dumping of waste in poorer areas in Abidjan, and other parts of the country. Furthermore, there are not enough officials to implement adequate and sophisticated measures of waste disposal here. This could be rectified though the proposals being made here. On the other hand, it is noteworthy that inspite of the lack of staffing shortages, the timeliness of this country's law forbidding toxic waste imports, has also led to a situation where this country has not witnessed any illegal imports of toxic waste.<sup>131</sup> In this case, the shortage of staff has resulted in the problem of how to manage toxic waste within the country, and not necessarily how to deal with the illicit importation of such waste. The main challenge here is to enact effective domestic legislation then.

On the whole, it is necessary that each of the three case study countries has enough quality trained personnel in this field, in order to avoid events such as the 1992 environmental tragedy of Cheliabinsk and Orehovo-Zuevo in Russia. This case demonstrates the potentially tragic danger of permitting inexperienced people to deal with hazardous waste. In this year, both towns in question, upon receipt of seventy tonnes of toxic cellulose waste, which had been disguisedly labelled as humanitarian aid, tried unsuccessfully to burn the waste. These

substances produced defoliant toxins, causing a great deal of dioxin poisoning and the resultant uncontrollable vomiting among the populace.<sup>132</sup>

In the light of these, it may be submitted that the government and those of other developing countries need to find financial support for the training of inspectors and other officers in this very important field. For it seems reasonable and only logical that people dealing in any area/field be endowed with the relevant expertise. In this regard, it is commendable that the BCRCs in Dakar and Pretoria continue to conduct training sessions for participants every now and then, as discussed in Chapter 3.4.1(f)(a)(ii). It is important that such training be extended to customs officers, particularly in the border towns of each case study countries as toxic waste imports and exports normally occur here.

Participants to these international sessions should be required to submit reports on the attendant benefits. These lessons may be shared with other colleagues of the proposed Inter-Agency Scheme, the Centres which conduct these sessions, the WTO Trade and Environment workshops and the public at large, by also making them available on the website. It may be suggested at this point that the Inter-Agency Permit Scheme liaise with the Basel Centres and relevant WTO offices, to stipulate clear guidelines and structure of this report, which they submit to the international offices before any training session and availability to the public. By so doing, officials from these countries who work on these matters in addition to becoming better trained also acquire a sense of ownership and not just common but differentiated responsibility when working on these matters and attending relevant training sessions (nationally, regionally and internationally).<sup>133</sup> One other advantage of this proposal for lessons-sharing would also be to facilitate research being conducted by students, consultants and other interested/affected parties. This group of persons could thereby make proposals for a better functioning of the model law, much more easily.

In this vein, one would even adopt a proactive approach by even going as far as advocating the establishment of Certificate and Postgraduate Diploma Courses in Hazardous Waste Management within the context of International Trade and Environmental Issues. This could be organised at the initiative of the WTO and UNEP, perhaps, as part of the WTO courses at the University of Nairobi for Anglophone country participants and University of

Cassablanca for Francophone country participants. These proposed courses could be taught to University students and civil servants in these two developing countries' Universities here. The only caution which must be heeded to, regarding the International Trade and Environment proposal here is that this programme must be entrusted to only these two Universities. This could lead to the avoidance of administrative problems and all sorts of discrepancies.<sup>134</sup>

#### 5.3.4 Lack of Adequate Penalties

As there are no harsh penalties under the existing hazardous waste regime in South Africa and Ghana, it is practically very easy for exporters and importers alike to enter into all sorts of illegal contracts for the importation of hazardous wastes and flagrantly abuse laws which deal with these issues, regardless of whether South Africa and Ghana have ratified the relevant international or regional instruments on hazardous waste. In many developing countries this has also been the case. How do citizens abide strictly by the stipulations of a legislative instrument which does not spell out any punitive measures, in case there is disobedience? The inevitable result of such a scenario is clear: the so-called law becomes a white elephant.

With this in mind, it seems advisable and very important that the new legislation for South Africa and Ghana on this matter incorporates highly stringent punitive measures, unimaginably prohibitive fines for those who infringe the laws regarding the importation of hazardous wastes and damages to people who are injured from such toxic waste trade malpractices.<sup>135</sup> However, the contemplated law on toxic waste in South Africa actually foresees the stipulation of penalties to the effect that offenders will be fined one million US dollars.<sup>136</sup> Depending on the magnitude of injury to people or the ecological base, guilty companies, both local or foreign, will have to forfeit their licenses which allow them to operate their respective business which caused such toxic waste peril. Offenders do not only include illegal importers or exporters of toxic waste, but could also cover customs officials who were on duty at the time when such transactions occurred, since such officials are required to exercise due diligence in these matters, from the requisite training of Basel and other relevant mechanisms, as indicated in Chapter 5.3.3. The principle of extended producer responsibility could also form an important part of this law, thereby making a

manufacturer of a substance containing hazardous waste, responsible for any harm inflicted by such a product, during the entire life cycle, that is, cradle to grave, of the product.<sup>137</sup> The model law could also include retroactive liability, as in the case of Love Canal, where the company responsible for the toxic waste malpractices was made to pay for its action, which had been caused many decades in retrospect.<sup>138</sup> One advantage of retroactive liability then is that it always seeks to enforce the polluter pays principle.

Furthermore, these industries should be made to pay huger fines and also be given environmental incentives, covering the resultant damage inflicted on the environment, through whatever pollution they cause. Presently, toxic waste producing industries are simply made to pay fines, which constitute a meagre percentage of the amount spent by these industries to clean up their factories. The "polluter pays" principle could be adopted, where an industry or a party does not conform to the preventive principle. In such instances, such a party would be required to pay larger sums of money for permits to get rid of waste.<sup>139</sup> Such a requirement would make the party careful to use cleaner and greener methods in its production processes.

As far as Côte d'Ivoire is concerned, its municipal law on toxic waste, Law 66-861 makes room for penalties, for offenders of this law. The fact that offenders must pay a fine of 1.6 million dollars (US), in addition to serving an imprisonment term of approximately 15-20 years is commendable.<sup>140</sup> As a result of this, this country has since 1988, not witnessed any illegal imports of toxic waste into its territory.<sup>141</sup> This fine could even be extended to 3 million dollars (US). However, this law, must also stress that illegal exporters of toxic waste should be equally liable to such punitive measures. This owes to the fact that these substances, such as PCBs, are sometimes sent illegally, from this country into Ghana.<sup>142</sup>

The basic rationale behind the suggestions herein is to have a situation where laws may not only look fine theoretically, but more importantly, will have full effect regarding their implementability, so as to achieve the desired goal of these laws.

In addition to preventing illicit transactions in these substances, such measures also make the principles of *locus standi* and human rights to a decent environment have meaning and

definiteness of purpose. Here, the main idea is that, if a law equips an individual to bring an action against illegal transactions of toxic waste which have affected that individual's rights to existence or interests in land, the offender must be made to pay for the damage inflicted on the other party, in this case.

#### 5.3.5 Low Public Awareness

According to the UNEP *Global Environmental Outlook*, one cause of hazardous waste mismanagement is the low awareness of the understanding of the impacts of "cold poisons" such as lead and mercury, as well as some industrial solvents and some pesticides, and insufficient measures to protect human health and the environment. There is far less knowledge relating to the toxicological effects of a number of new chemicals emerging into the new market. Such chemicals may be present in household products, cosmetics and new pharmaceuticals.<sup>143</sup>

Until recently, majority of the populace in South Africa, Ghana and Côte d'Ivoire whose main preoccupations lie in seeking the basic necessities of life such as food, water, clothing and shelter, generally perceive environmental issues as alien and foreign. This low level of public awareness with regard to environmental issues also makes them engage in all sorts of practices which cause hazardous waste emissions into the environment, and pose general environmental threats.

For instance, South Africa's Department of Agriculture has indicated that one problem in controlling waste issues in this country is that after purchasing pesticides, people do not use them. These pesticides remain on the farm for years, and then, combine with other gases from the containers in which they are stored or other gases from the atmosphere to become toxic. For example, Benzene Hexochloride (BHC) is a pesticide which was used quite a lot to control locusts. It is not used any more as it has now become obsolete-old stock and has been substituted by Synthetic Pyrethroids. Similarly, dieldrin, another pesticide, was used for termite control, constituted one of the organo chlorides and accumulated in the fat of wildlife and humans. It is now obsolete, and has also been replaced by Chlorpyrifos which has also been used in place of Aldrin, which was hitherto used to control subterranean



termites. Had those obsolete substances not been cleaned up, they could have caused a great deal of environmental harm.<sup>144</sup>

In Ghana, the EPA and some other offices dealing with hazardous waste have indicated that the public does not possess adequate knowledge on these issues.<sup>145</sup>

In this day and age, sustainable development, that is, the need for the prudent utilisation of present resources for the use of future generations,<sup>146</sup> has become a very important tool in national and international policy-making. This vital concept inevitably affects all sectors of life. Therefore, it is important to enlighten farmers, other handlers of toxic waste and the public at large on how they can manage their environment and the resources they have in a prudent manner. More workshops, public debates, TV and radio programmes could be organised to elucidate the importance of these matters to the public. It is commendable though, that such efforts are underway, for instance, the Johannesburg-based NGO, the EJNF, has organised a project, Soweto Mountain of Hope, which trains children on environmental issues.<sup>147</sup> It is hoped that public awareness will be stimulated through these activities. As indicated in Chapter 3.4.13(b), these matters could even form part of the curricula for primary education, so that citizens are greatly familiar with prudent principles in toxic waste issues, from an early age. For public opinion plays a vital role in influencing governmental policy pertaining to toxic waste trade.

On the other hand, it is also commendable that public opposition led to the rejection of the proposed imports of toxic waste from Italy in 1988-1989 and in 1994, into Ghana, in toxic waste.<sup>148</sup> Furthermore, as seen in the cases of South Africa and Ghana (and also, Guinea-Bissau, Central African Republic, Benin and Nigeria), public awareness has been instrumental to the rejecting of goods which are deemed to be potentially destructive to the health and environment of the respective importing countries. For example, in addition to the influence from the South African government, public outcry was a significant factor which made the then South African homeland government of Ciskei abandon plans to import large consignments of hazardous waste.<sup>149</sup> Following the recommendations indicated here, South Africa could strengthen the level of awareness of its public, which should be acutely aware of the imminent dangers posed by these harmful practices. So that, it can be

seen here that currently, in this country, slight vicissitudes seem to be on the way as regards this situation.<sup>150</sup>

In Côte d'Ivoire, public awareness contributed to the enactment of specific law banning toxic waste trade in this country in 1988. Today, such awareness is being enhanced by workshops of the Basel Convention Regional Centre in Dakar, which seeks to increase the knowledge of officials and the public on the environmental considerations to be included in hazardous waste management.<sup>151</sup> This is useful when it comes to assessing the quality of toxic waste which the country needs to import or export.

#### **5.4 Case Studies Involving Importation and Exportation of Hazardous Waste**

##### **(A) South Africa**

##### **5.4.1 Proposed Waste Incineration Plant Project (1989)**

In 1989, the South African government came out with a declaration to establish a R400 million waste incineration plant in Alexander Bay, which is located in a remote area of the northern Cape Province. This project would have generated as much as 400 million rands per annum. The main source of economic dependence of this project would have been the importation of hazardous waste. In reaction to this proposal, there was a great deal of public interest. Ultimately, the government had to abandon this project.<sup>152</sup>

##### **5.4.2 Thor Chemicals Case**

In the 1980s and early 1990s, this country witnessed the rather tragic catastrophe of the *Thor Chemicals Case*.<sup>153</sup> Thor Chemicals was established in the early 1960s at Cato Ridge in Kwa-Zulu Natal, in the Umgeweni catchment area, as the South African affiliate of a British Company.<sup>154</sup> This company produced various chemicals and entered into an agreement with AECL, which required mercuric recovery from spent mercury catalysts. Then in 1984, a new processing plant was constructed and begun operations.<sup>155</sup> Owing to allegedly excessive levels of mercury in the air and workers' urine in England in the 1980s, concerns over Thor were first raised at its factory there (that is, in England).<sup>156</sup> Around this time, the British government imposed highly stringent conditions on this company.<sup>157</sup> Thor was threatened by the British government with legal action and moved its mercury processing facilities to Cato Ridge, within the Kwa-Zulu Natal region in South Africa in 1988.<sup>158</sup> At this time, Guerlica

Company, an affiliate of Thor Chemicals, begun to export 30% of hazardous waste from the UK into South Africa.<sup>159</sup> It also imported mercury, from Britain, USA, Italy, the Middle East,<sup>160</sup> Singapore and Indonesia into this country, as part of its operations.<sup>161</sup> Thor had been importing spent catalytic converters containing approximately ten tonnes of mercury from these countries on an annual basis for reprocessing. The mercury was released by a recycling plant which processed imported toxic waste. In the event, mercury was released into the Umgeweni River in rather excessive quantities. This river, which eventually feeds the Inanda Dam, the source of Durban's drinking water, was found to contain some of the highest concentrations of mercury ever recorded.<sup>162</sup>

Furthermore, the emission of this substance, which had been allegedly stored for as long as a decade and over, in barrels which were supposed to be contaminated and rusty, caused alarming numbers of loss of lives, amid rather large sectors of Natal's populace. Many workers in this particular company were poisoned, with the resultant massive public protest.<sup>163</sup> Consequently, in 1994, the South African government, under President Nelson Mandela, initiated a Commission of Inquiry, the Davis Commission, to ascertain what action could be taken with regard to this unfortunate incident as well as how the affected workers could be compensated.<sup>164</sup> The Commission was specifically mandated to : (1) Develop a standard for recycling mercury in this country; (2) Define parameters for occupational health and safety; and (3) Establish guidelines to ascertain the possibility of upgrading the particular incinerator that was used, in order to accommodate the appropriate amounts of waste.<sup>165</sup> The Davis Commission, headed by Prof. Davis, condemned the company for importing thousands of tonnes of mercury waste and exploiting a situation when they were aware that there was just no means of effectively reprocessing the waste.<sup>166</sup> Prof. Davis further pointed out that there was a total absence of co-ordination between the relevant government departments responsible for the environment and inexplicable inefficiency and unexplained omission".<sup>167</sup>

Thor's parent company in London, UK, was sued in British courts by a London firm of solicitors, acting on instructions from the South African Chemicals Union. As a result of this, the parent company in Britain agreed to pay R9.4 million (US \$ 2 m) to compensate 20 workers from the Cato Ridge Plant who had been affected by mercury poisoning. In the

early 1980s, two of the workers at Thor had died of mercury poisoning. This led to the publicization of this case in the media. Other workers suffered serious damage to their health as a result of coming into close contact and working with mercuric waste. Although the company's South African executives were acquitted of culpable homicide in a court case in Pietermaritzburg in 1994, the company was found guilty of negligence but fined a mere R13, 500 (\$3,000). It has also been said that the people who suffered from sicknesses were compensated 50,000 British pounds sterling each. According to a Greenpeace video, in the rivers within the vicinity of the plant, mercury levels were 8,200 times higher than the acceptable level in the United States.<sup>168</sup>

On the other hand, it must be noted that there are all manner of discrepancies and contradictory assertions by various parties involved in this case.<sup>169</sup> For example, one party states in its claim that the waste was actually generated from South Africa, one drum originated from the US, another came from the UK, and another party states the opposite, regarding the same drums. Furthermore, it has been claimed that Thor Chemicals had been experiencing problems with the control of mercury because of heavy rains and increased production, and not as a result of negligent attitudes on the part of employers.<sup>170</sup>

The current status of this case is that the standard of mercury has been developed, while three treatment options have been established. (1) The incinerator at the Thor plant has been upgraded; (2) A new form of internal combustion has now been established, whereby the gases are controlled; (3) The waste can further be burned through encapsulation and landfill.<sup>171</sup>

#### 5.4.3 Other Examples

##### 5.4.3 (a) Proposals for Hazardous Waste Imports (1990s)

In 1990, there were a series of proposals for the importation of toxic waste for reprocessing in the South African "independent" states. However, owing to the outcome of a study by the CSIR, this importation could not be effected.<sup>172</sup>

Furthermore, in early 1990, a letter from the Transkei Development Corporation was quoted in the local media: "We have a wealth of ravines and canyons which could become useful

territory for reclaiming if they were filled with sanitarily processed waste on which perhaps trees could be planted.” According to Greenpeace, this supposedly “sanitarily processed” waste was actually “unknown quantities of unknown chemicals, presenting health threats of unknown magnitude and duration to the people and ecosystems of neighbouring communities”. Fortunately though, the government of Transkei refused to accept the deal.<sup>173</sup>

Then again, in October 1990, a Swiss arms dealer presented plans to the scientific division of the South African consulate in Switzerland, for incineration and disposal of nuclear waste in Ciskei, Bophuthatswana, Transkei and Lesotho. Sources at the Foundation for Research and Development at the Council for Industrial Research have confirmed that four “homelands” had already received lucrative offers from overseas, which did not materialise however.<sup>174</sup>

#### 5.4.3 (b) Shipment of Cupric Arsenite from Kokkola, Finland to Durban (1999)

In 1999, the South African based NGO, Earthlife Africa, was alerted by another South African based NGO, EJNF, about the pending shipment of greatly toxic cancer causing chemicals of least 16 per cent arsenic in copper arsenide cake and 500 tonnes of cupric arsenite from Kokkola, Finland, en route to Durban. These substances were being transported by the ship, the Saint Irene. Earthlife Africa then caused this ship to be sent back to its country of origin. After a whole lot of controversy concerning whether the South African DEAT had prior knowledge of this shipment or not, the Saint Irene arrived in Finland. Here, it was disclosed that the waste in question had been originally imported from Big River Zinc Corporation in the USA, to Kokkola Chemicals in Finland.<sup>175</sup>

Reports from the South African EJNF, indicate that in the mid-1990s, cupric arsenite was sent from Europe to South Africa. Furthermore, there were attempts to ship waste from Australia into this country. The GEM discovered this. However, the government said that these substances were for analysis and not treatment.<sup>176</sup>

#### 5.4.3 (c) Imports of Parageothite from Australia to South Africa (2000)

In September 2000, a number of environmental organizations such as Greenpeace, Basel Action Network (BAN), Earthlife Africa and Groundwork launched massive protests against the South African government’s authorisation of the imports of 60 tonnes of parageothite,

from an Australian mining and smelting company, Pasminco. These forms of toxic waste comprised two very deadly substances, lead and arsenic. The waste was to be recycled by the South African firm, Mintek, for research purposes. After that, the residual waste was to be sent back to Australia. The BAN indicated that information regarding the effects of the waste on the health of the workers who came into contact with this substance for recycling, as well as the effects on South African soil, was not yet known.<sup>177</sup>

#### 5.4.3 (d) Proposed Incinerator for Importation and Treatment of Stockpiled Waste in Sasolburg (2002)

In May 2002, more than a hundred environmental and civil society groups from forty five countries, belonging to movements against waste incineration urgently requested the South African president to abandon the proposal for the establishment of an incinerator in Sasolburg, South Africa, for stockpiled wastes. These movements included the Global Anti-Incinerator Alliance and the International POPs Elimination Network. The basis of this appeal was that incineration is known to generate highly dangerous toxic by-products, such as ultra-toxic dioxins and furans, which are targeted for elimination by the Stockholm Convention on POPs. These substances cause many serious health deficiencies such as cancer, birth defects, reproductive disorders and severe deterioration of the immune system, which could actually aggravate the conditions of AIDS patients.<sup>178</sup>

#### 5.4.4 South Africa's Importation of Lead Scrape from Botswana and Lesotho and Other African Countries for Recycling and Production of Lead for New Car Batteries, with Special Reference to Fry's Metals Company<sup>179</sup>

The South African Johannesburg-based Fry's Metal Company imports lead scrap for the recycling and production of lead, to be used in making new car batteries.

All lead scrape is purposefully utilised in the manufacture of car batteries. One noteworthy point is that this Company imports lead scrap from other African countries such as Nigeria, Zambia, Mozambique and very little from Zimbabwe, Botswana and Swaziland, for recycling. The South African company, Fry's metals, has a technologically sophisticated plant in Johannesburg which breaks up the lead, then recovers it, as well as the polypropylene contained in it. Regarding the acid contained in the lead, as there is no way of successfully

recycling it, it is now neutralised with lime and the residue disposed of in an H:H landfill waste technology. This substance is imported in the form of a battery plate.

The metals and lead oxide bit comes to South Africa, under the auspices of the Basel Convention, meaning that due regard is given to environmental issues. Nigeria has to seek an ISO 14000 permit from the Government of South Africa for this importation to occur. The South African Bureau of Standards also checks on Fry's company each year. The Company has, as part of its policy, the requirement for the prioritisation of the health and safety of the employees, as it deals with lead which is a highly contaminous substance. In this regard, this Company works in close collaboration with the DEAT and the Department of Health.<sup>180</sup> The company is also mindful that its activities do not result in air pollution. By ensuring that its entire site of operation is concreted, Fry's adheres to further environmentally sound practices. This is a safeguard against ground water pollution.<sup>181</sup> In the absence of this measure, the acid emitted from the recycling process could pollute the ground water, resulting in ground water contamination.<sup>182</sup>

#### 5.4.5 Export and Re-Importation of Used Batteries in Electrical Appliances: Battery Terminal<sup>183</sup>

Tonnes of used batteries from electrical appliances such as radios, cellphones and screwdrivers, have been collected by Battery Terminal company. These batteries are made up of nickel cadmium (which is the most toxic of the constituent elements of the battery) and nickel, lithium, lithium iron, cadmium, alkaline and mercuric oxide, which are relatively less toxic than nickel cadmium, but are comprised in more volumes, as opposed to nickel cadmium. All activity has stopped at the collection point, for up to date, no progress has been made, concerning the Company's proposal to reprocess these batteries for recycling and resale. A concept/proposal of this kind has never existed in Africa, Australia or in New Zealand, according to the manager of the project.

On the other hand, such concepts exist only in Europe, USA and the Asian countries of Taiwan and China. Another important factor responsible for this lack of progress is the exorbitant costs which are involved in disposing of these substances. The concept of operating this mechanism within a regional context, in the era of NEPAD, has been greatly

welcomed by the project manager who is prepared to research into this area about this possibility.

#### 5.4.6 Meltzer Company<sup>184</sup>

This company faces a similar problem to that of Battery Terminal, discussed above. To begin with, it collects spent batteries from electronic appliances such as radios, computers and so on. These batteries contain lead, cadmium, nickel and mercury. Meltzer stores these batteries in their containers, by putting all of them in concrete. Intensive efforts are being put into the proposal to establish a plant for reprocessing these batteries for re-sale. To begin with: the plant is costly and more batteries are required in this vein, to make the operation of such a plant more effective. Environmental considerations would definitely be taken into account. The officials in this company have never conceived of the idea of operating such a plant in the regional context. Indeed, they favour this initiative and thought it would yield a lot of economic benefits, in addition to promoting regional integration, once environmental considerations are incorporated into such operations. This also stems from their belief that it would be almost impractical to send such substances back to the first world. Better collect and recycle for resale in Africa, they concede. The officials believe that once the plant is set up and these operations are carried out locally, it would be easy to proceed and expand it within the African context. They are very keen to conduct some research on such a plant and also, to have their financial burdens resolved in this respect.

#### 5.4.7 Exportation of Iron Ore from Brazil to Japan through Cape Town<sup>185</sup>

In April 2004, a hole developed in the Taiwanese registered ship, the *Cape Africa*, in Cape Town's sea. The ship was carrying 150,000 tonnes of iron ore, from Brazil to Japan. There was a great deal of public discussion on whether to bring the vessel from the sea, to land, for repairs. However, the iron ore was toxic and could cause grave environmental perils to Cape Town's ecological base and also, the health of its citizens, if the vessel was brought onto land. This vessel was therefore towed further away to sea where it was repaired. There was no resultant environmental harm caused to the Cape coast. Though South Africa did not import toxic waste in this case, this discussion also demonstrates that unsound management of hazardous wastes in toxic waste trade, contrary to the Basel convention for instance, could adversely injure not only the state of export or final destination, but also, states in



transit. This would also constitute an illegal toxic waste trade activity. For this reason, the model African treaty incorporates the need for the liability of a party who illegally trades in toxic waste to be owed not only towards the importing state, but also, the state(s) of transit.<sup>186</sup>

#### (B) Ghana

##### 5.4.8 Proposed Importation of Polychlorinated Biphenyls, Arsenic and Cadmium Compounds from Italy (1988-1989)

In 1988-1989, there was a proposal to import waste from Italy into Ghana for the establishment of a Paint Factory in Ghana. An Italian industrialist was in Ghana for this purpose. However, upon examination, the waste was found to be highly hazardous. It contained a lot of arsenic compounds and cadmium compounds. The Ghana Government then rejected the requisite permit for the importation of this waste. It is noteworthy that this waste was later dumped in Nigeria, and resulted in the notorious Koko Affair.<sup>187</sup>

##### 5.4.9 Proposed Importation of Plastic Granules/Factory Waste (1994)

Around 1994, a Ghanaian manufacturing company specialising in plastic ware imported what was supposed to be plastic granules for the manufacture of plastic containers for drugs. The name of the Ghanaian company was Metaloplastica. Upon examination, the granules were found to be factory waste and highly toxic. There was a lot of agitation by the media, public and in Parliament. Government conducted a series of investigative inquiries into this matter. In the end, the consignment was rejected and was buried. From these two incidents, it may be inferred that Ghana is perhaps more "anti-hazardous" than Senegal, Benin and some other countries within Africa and most countries in the rest of the developing world.<sup>188</sup>

##### 5.4.10 Proposed Waste Stock Exchange Project (1990s)

Within the Global Environmental Facility, private environmental organizations contemplated a proposal for a Waste Stock Exchange Project in the 1990s. According to this initiative, this project was possibly to be located in Ghana. It was to import waste from Ghana and other African countries for recycling and trade. The main idea behind such a project would be to trade in wastes, for example, used torches, electrical appliances and used batteries therein, as well as other such appliances. This was deemed to be more

environmentally and economically desirable instead of dumping these substances on garbage heaps, or in any other haphazard manner, as is sometimes the norm in Ghana, Côte d'Ivoire, South Africa and many other African countries.<sup>189</sup> Though this project was not implemented, it could be re-visited, especially, when specific municipal laws have been put in place, in the advent of NEPAD, when environmentally sustainable intra-African toxic waste trade is also timely.

#### 5.4.11 Importation of Petroleum for Processing and Resale: Tema Oil Refinery

Basically, this company imports crude oil from Nigeria (In past times, crude oil was also imported from Iraq and Libya, as well). This oil consists of 100% crude oil, 65% LPG and gasoline. It also has a low content of sulphur, which is highly flammable and can be dangerous. Tema Oil Refinery has two plants, which comprise the Topping Unit and the Residual Fluid Catalytic Cracker.

Before distilling the crude oil, anti-corrosive compounds, that is, soda and emulsifier, are added to it (the crude oil, that is). At the Topping Unit, the crude oil is distilled into various portions, that is, LPG, gasoline, kerosene and crack residue. This is done at atmospheric pressure. The crude oil is heated in furnaces, between 340 and 350 degrees. The outcome of this operation is the production of the RPGs, gasoline and jet kiln. These substances are utilised in airplanes and for domestic purposes. Diesel, a combination of light and heavy gas oil, is also another by-product of this refining process. The gasoline at this stage is a semi-furnished product-heavy gasoline.

At the RFCC, the gasoline is broken at the Premium Former Unit and broken into cyclic compounds for better performing gasoline. There is also some amount of residual fuel oil from this exercise which serves as a feed to the Residual Fluid Catalytic Cracker. Part of this residual oil is crack fuel oil, which has a small market in Ghana. This was hitherto exported to the USA and Europe in large quantities. However, smaller quantities are being sent there, that is, a maximum of 25,000 tonnes of crack, whereas before, it did not amount to at least, 35,000 tonnes, meaning that there has now been a considerable decrease in the amount of crack oil exported from Ghana to the USA and Europe. Although intra-African trade in these substances is a possibility, this may not take place in the foreseeable future, that is, not

earlier than in twenty years' time, this Company opines. The issue of intra-African trade here ties in with the fact the crude oil was previously transported from Libya and Iraq, by ship, below flashpoint temperatures and was the cheapest means of transportation. However, the company is planning to start using the ECOWAS pipeline for the importation of these products, especially, when intra-African trade in these substances begin.

The only waste generated is fuel gas for heating. Any excess gas is flared. While carrying out the abovementioned operations, the Tema Oil Refinery adopts environmentally friendly measures. For instance, a sewage system is in place. There is also a centrifugal system, so that if the sewage water (from the Refinery's operations) meets standards, it is safe to dump it into the sea. This Company, does that, since its water meets the requisite standards. It also uses the Quality Assurance test for finished products and has a laboratory in place for this. Here, the products above are tested for their market specifications and then sold. This oil product is sold to licensed oil marketing companies such as Shell and Mobil (Energy Commission), who then do the distribution. Though the light cycle oil has no market, it meets the needs of local companies, which purchase this oil for heating in furnaces *inter alia*.<sup>190</sup>

#### 5.4.12 Kennedy Round 2-Japanese Government Project

Under this project, the Japanese Government provides Ghana with a list of pesticides which are supposed to be reasonably priced. Under the same conditions, Ghana further imports these substances from China. These pesticides are labelled in Chinese, which does not happen to be an official language in Ghana. However, after importing these pesticides, they cannot be utilised, since their season for use is already over. This means that they become obsolete and they become stockpiled. Owing to their toxicity, they affect the ecological base and the health of the people.<sup>191</sup>

#### 5.4.13 Importation of PCBs from Nigeria, Côte d'Ivoire and USA

From time to time, PCBs are imported during the course of free trade into Ghana from Nigeria, Côte d'Ivoire and USA. These substances are used by many consumers in the Ghanaian market, especially by women for producing hair pomade and skin bleaching cream. They are also used in electrical appliances.<sup>192</sup> It is noteworthy that unlike the case of

Chapter 5.4.14 for instance, these products which are exported from these territories into Ghana during the course of free trade, are not authorised by the Ghanaian government.

#### 5.4.14 Importation of Petroleum for Refining and Sale: Lube Oil Company

This company basically imports base oil, that is raw material from countries of the EU. This raw material contains normal hydrocarbons. Lube Oil then reprocesses and refines the oil by including highly toxic substances such as antifoams, anti-rust and temperature depressants, as additives to the oil. After reprocessing the oil and refining it, it is then sold to the oil marketing companies such as Shell and Mobil to produce for them. For many years, Lube used to export this oil to Côte d'Ivoire and Burkina Faso. At the moment, Lube concentrates more on selling to the Ghanaian market. However, owing to its successful large-scale productions, the officials have welcomed the idea of marketing the produced oil to other markets within Africa.<sup>193</sup>

#### (C) Côte d'Ivoire

Research findings from this country's Environmental Affairs Ministry in 2002 and 2003, have indicated that apart from the importation of insecticides and fertiliser for use in the agricultural industry, this country has not witnessed any importation and exportation of toxic waste, in any form. So that, in contrast with the Ivorian case studies in Chapter 5.4.16 and many other examples in Chapter 5.4, the case studies in Chapters 5.4.17 and 5.4.18 do not deal with the importation and exportation of toxic waste.

This, for instance, runs contrary to findings in Chapter 5.4.14, which however reveal that there are illegal exports of PCBs from this country into Ghana. However, case studies at this point and the ensuing laws of this country on toxic waste, also show that Côte d'Ivoire, like Ghana and unlike South Africa, is totally opposed to toxic waste trade across borders and feels that it is better to manage these forms of waste as close as possible to its source of generation.

Furthermore, toxic wastes are not simply PCBs, PBBs and so on. This country's importation of crude petroleum oil and other substances containing toxic wastes from Nigeria could be seen as an instance of toxic waste importation.

#### 5.4.15 Importation of Petroleum Oil for Refining and Export: The Case of La Société Ivoirienne de Raffinage

On 3<sup>rd</sup> October 1962, the Ivorian government, with the assistance of international oil groups, established La Société Ivoirienne de Raffinage in Abidjan as one of Africa's oil refinery companies. This company processes approximately 3,000,000 tonnes of crude oil, that is, 60,000 barrels every day.

The main aim of this company is to manufacture oil products for the Ivorian and export markets, to guarantee oil supply in Côte d'Ivoire, to be a fundamental source of supplying petroleum oil to other West African countries and to maintain international status. To this end, the Company supplies the markets of these other countries with manufactured products namely, butane, premium gasoline, regular gasoline, heavy vacuum oil, kerosene, jet AI, heavy vacuum oil, gaso-oil, diesel distillate oil and fuel oil 180 and 380, which are resultant products from its refinery process.

Every year, the company purchases about 125,000 to 130,000 tonnes (that is, about 24 cargoes) crude oil mainly from Nigeria for processing in Abidjan. The company has two hydroskimming units, which comprise atmospheric distillation and hydrotreating units and reforming. Composed of these two units are one hydrocracking unit (vacuum hydrocracking, hydrogen, hydrocracker) and one power station and unit.

At the atmospheric distillation unit, the first separation of crude oil is made, resulting in several petroleum cuttings which are stored or reprocessed. There is then the hydrotreating process which comprises a series of techniques targeted at removing undesirable compounds from a petroleum cutting, using a catalytic treatment with hydrogen. These units are utilised in the manufacture of Jet AI and desulphurised gasoline.

There is then the hydrocracking process which consists of feeding the hydrocracker with heavy vacuum gas oil obtained through vacuum distillation of atmospheric residue. This charge undergoes several chemical conversions in reaction with hydrogen and is then divided into light products such as butane, gasoline, kerosene and gas oil. After these processes, the company markets these products to petroleum companies in many African countries,

ranging from Mauritania to Namibia. It also serves other companies in the USA and certain countries in Europe.

In addition to these operations, the company also purchases natural gas emanating from an Ivorian gas field, from the American Consortium Ocean Energy. This gas is utilised as domestic fuel and also in the hydrogen process required for hydroprocessing. The gas is used to operate the hydrocracker and represents 53% of the total fuel used by the refinery.

The company also imports other hazardous substances such as residual distillate from crude oil reprocessing. This is used in the production of bitumen which is increasingly demanded by countries of the sub-region. As indicated in Chapters 3.5.1 (a) and (b), the company adheres to strict environment standards when engaging in its operations, enabling it to gain access to foreign markets.<sup>194</sup>

#### (D) 5.4.16 A Recommended Case Study for Intra-African Trade :Specialisation in Recycling Different Forms of Toxic Waste

In Chapter 2, a discussion was made on the advantages of free trade, as opposed to protectionism. Such beneficial aspects of a liberal free market strategy, it was indicated, included specialisation and comparative advantage.<sup>197</sup> For the purposes of the three case study countries' efficient trade in toxic waste trade in the new advent of NEPAD, these concepts of specialisation and comparative advantage could be useful in the following way:

While Ghana could specialise in collecting used batteries in electrical appliances, torches and other similar products, for recycling and selling, Côte d'Ivoire could specialise in the collection and recycling of crude as well as used petroleum and engine oil. The relevant projects discussed above, for instance, the proposed UNDP Waste Stock Exchange Project in Chapter 5.4.11 and that for refining and selling crude oil in Côte d'Ivoire Chapter 5.4.16, for example, would be relevant. In the case of the latter country, one might ponder the establishment of at least, two companies, similar to that of South Africa's ROSE Foundation for example, cited in Chapter 5.4.4. South Africa then specialises in the collection and recycling of used engine oil and lead scrape. Though each country specialises in each of these substances being discussed here, this does not necessarily suggest that it must be limited to

the product being proposed here. In this regard however, Ghana's specialisation might still be carried out on a smaller scale by certain companies in South Africa, such as Battery Terminal in Chapter 5.4.6 and Meltzer in Chapter 5.4.7. Each country also specialises in engaging experts to explore the probability of recycling rubbish at municipal level, in order to derive methane gas for cooking purposes, as stated in Chapter 5.3.1(b)(ii) above. Other substances are also recycled, using the examples in Paragraph 4 of Chapter 2.7.1(a), for instance. The recycled items could eventually be sold across African borders. In all these cases, one could possibly reflect on the forging of partnerships between these South African companies on the one hand, and these proposed West African companies on the other.

However, each country needs to specialise in a particular category of waste in the region. The main purpose of such a suggestion is to ensure that no country's territory is turned into a dumping ground for treating hazardous waste. For instance, South Africa is known to be greatly more technologically sophisticated than the other two case study countries and others within the continent.<sup>198</sup> If such proposals are not taken into place, all forms of waste may be sent here from the two case study countries and others within the continent, for recycling and trading. This would be grossly unfair and could contaminate the environment of this country in no time. However, once such "waste collection and recycling chores" are distributed in an equitable fashion amongst these countries and others in Africa, financial benefits accrue to everyone while safeguarding the environmental of each of the countries.

Through the proposals in this section, specialisation then provides a viable solution for resolving the persistent stockpiling of rubbish in many communities within the three case study countries, a problem which has been discussed in Chapter 5.3.1(b)(ii).

## **5.5 Hazardous Waste Trade Policies in South Africa, Ghana and Côte d'Ivoire**

### **5.5.1 South Africa**

#### **Background**

##### **(a) CSIR: Waste Management Situation Report (1991)**

In this country, the 1991 Report is a useful policy in hazardous waste management issues. In this sense, though the Report and many of the South African policies in this chapter do not exclusively deal with hazardous waste imports and exports, they are relevant to this thesis

and are being discussed, as some of their stipulations deal with crucial matters in toxic waste trade, such as its environmentally sound management. In this regard, this Report provides information pertaining to all aspects of waste generation such as: the sources and amount of waste produced in the country, the final destination of such waste and the current international and national laws on waste issues at the time.<sup>199</sup> This policy resulted in the publication of further policies and mechanisms. No specific legislative instrument has however been formulated.<sup>200</sup> This holds true with due consideration to the National Waste Management Strategy (1999), the White Paper on Pollution Control (2000) and other similar policies which abound in this sphere.<sup>201</sup>

(b) Hazardous Waste Report (1992)

The 1992 report, cited above, resulted in the publication of a five volume report on hazardous waste. It was the outcome of a research study conducted by the DEAT and the then Foundation for Research Development (FRD). Each of the five volumes encompassed one of the following respective titles: Situation Analysis, Technologies, Policy, Legislative Options, and Impact Assessment.<sup>202</sup>

5.5.1 Proposed Policy in Terms of the Environment Conservation Act 73 of 1989-on Hazardous Waste Management<sup>203</sup>

Following a series of detailed reviews pertaining to waste related issues on recommendation by the DEAT, the Draft Waste Management Policy was published on 30<sup>th</sup> September 1994. However, due to the negative public response with which this policy was met, the Department embarked on a reformulation of this policy.<sup>204</sup> While acknowledging that South Africa's membership to the Basel Convention prevents this country from imposing a blanket ban on the imports of hazardous substances *in toto*, the Policy provides a realistic justification of reasons why South African governmental policy should also be sometimes geared towards importing hazardous substances.<sup>205</sup>

Firstly, as South Africa is more adequately endowed with the necessary equipment, infrastructure and up to date technology to dispose of and treat waste, as compared to its neighbours, the importation of these substances seems to be quite in order. The condition to be abided by is vitally important, that is, the disposal of these substances must conform to



technically suitable standards and must deviate from causing all manner of environmental disasters in the region.<sup>206</sup> This is appropriate when considering the natural tendency of these substances to be of a transboundary nature.

It would be cost-effective for this country to import certain by-products, as these could be utilised as valuable raw materials, for re-use in the production cycling of products. No environmental benefits would be attained by curtailing the import or export of these materials.<sup>207</sup> The financial benefits to be derived from trade in such substances is thus evident here. However, the Policy also reiterates the point raised earlier in this thesis that the environmental health of the importing country must also be taken into consideration, because promoting economic activity does not mean that the environment and the life of people should be destroyed.<sup>208</sup>

The policy further “generally prohibits exports of waste” from territories of non-party states to Basel.<sup>209</sup> This is evidently in conformity with Basel and also ensures that parties do not ratify Basel on the one hand, and engage in hazardous waste trade with non-parties on the other.<sup>210</sup>

It further provides that these wastes should only be exported in accordance with the provisions of Basel, and with the permission of the appropriate authority responsible for issuing such approvals.<sup>211</sup> Persons treating, trading or disposing of waste or handling waste in any other manner should consult the relevant authorities concerned.<sup>212</sup> This seems reasonable, for without the provision for such permission, the Act could be of no practical value. The Departments of Water Affairs, Environmental Affairs and Tourism, and Trade, for instance, have confirmed that such permission has sometimes been refused because the substances to be transported are questionable.<sup>213</sup>

This policy further requires that an accurate database of waste generation, trade, storage, transport and disposal statistics is a vital ingredient of an effective regulatory system. Consequently, waste generators, brokers, transporters and disposal sites operators submit information pertaining to hazardous waste in a suitable format.<sup>214</sup> The strategy also contemplates the need for the availability of such information for public record. On the

other hand, provision should be made for justifiable industrial and trade secrecy, in circumstances where the disclosure of certain information could have adverse impacts on vested business interests.<sup>215</sup>

Though the compiling of information should not be done in a haphazard manner, the requirement for "suitable format" is admittedly vague and ambiguous. For instance, the strategy could clarify whether such format should be in tabular form, what factors should be taken into consideration when compiling such a report, for example, where did it originate from, where will it be disposed, what are the constituent elements of such waste, and so on. By explicitly spelling out these minute details, all sorts of ambiguities are eluded, which would otherwise lead people to deliberately or negligently fall foul of the requirements in these laws.

Since there are many technological and managerial knowledge gaps that impede effective control of waste generation and its management, problem research must be initiated and funded. The principal and other authorities concerned must thus be in a position to obtain funds for research and investigations.<sup>216</sup> On the one hand, periodical research in this area demonstrates the high degree of importance, which is accorded to this issue. However, the purpose of such research must also not be neglected and must be detailed, for instance, so that the types of wastes which are being transported into South Africa will be known and the public will know the sort of ways in which the government is tackling these problems. The strategy also foresees the need for funding for such research. For a more practical way of obtaining the necessary funding for implementability, one would like to suggest specific agencies, which the government could approach, to obtain funding for such research. Such agencies include DANCED who have already been involved with South Africa's National Waste Management Strategy for instance and the Canadian International Development Agency.<sup>217</sup>

The institutional capacity required to give full effect to this policy in any individual authority is currently lacking. For a successful implementation of a pro-active control measure for waste generators, as well as further regulatory control regarding brokers, transporters and waste disposal sites, additional capacity will be needed. Since this may impose an impossible

burden on the present fiscus if implemented simultaneously, an incremental approach should be adopted.<sup>218</sup> It is not very clear what “additional capacity” and “incremental approach” are tantamount to. Presumably, this section of the strategy seeks to advocate that environmental laws should take into account the fact that there would be more institutions needed to regulate more volumes of hazardous waste generation. These institutions would compliment the workings of the law. However, as the present requirement stands, it is somewhat difficult to give it a clear and meaningful interpretation.

Minimum requirements for landfill sites have *inter-alia* been developed and will be released for public discussion soon. It is also anticipated that a greater degree of stricter control will also be enforced.<sup>219</sup> Commendably, the strategy has identified guidelines to be followed by those involved in hazardous waste issues. The fact that the public will have access to information on what standards to which they must conform, is also a positive attribute.<sup>220</sup>

Stricter control is evident when the strategy necessitates that one or more of the following regulatory strategies are adopted in exercising effective control over the full waste cycle, though the policy recognises that in practice, a combination of these three is likely to prove the most effective: (a) self regulation (b) command and control and (c) pro-active regulation. The first element is not highlighted. Supposedly, it suggests that those generating and handling the waste should be able to adhere to principles, such as waste minimisation and prevention, and not rely on governmental assistance all the time. This also calls for a diligent and cautious approach through the enforcement of minimum standards through regulations. According to the second approach, each disposer, transporter and other party involved in the waste management process, ought to be diligent and the onus lies on them, in order to manage his own waste management plan. The third measure which provides the regulatory authority with the opportunity to impose conditions the applicant must adhere to, where necessary and appropriate, would include:

- (a) Avoidance measures, (b) Minimisation measures, recycling, (c) Special treatment, (d) Disposal requirements, (e) Rehabilitation and closure requirements, (f) Additional, non-statutory requirements, (g) Financial provisions and (h) Exemptions from statutory requirements.<sup>221</sup>

The strategy also proposes concrete means of waste disposal, the best being the incineration methodology or other processes, and such processes to be regulated by the relevant provisions of the Occupational Health and Safety Act, (1993),<sup>222</sup> the Hazardous Substances Act (1973),<sup>223</sup> or other applicable acts, such as the Water Act (1956),<sup>224</sup> and the Atmospheric Pollution Prevention Act, (1965).<sup>225</sup> Perhaps, if incineration is carried out by well-qualified people, for instance, scientists, who study chemistry, and are given practical training in this field, in specialised institutes which offer these programmes, this would be quite in order. The USA for instance has followed this trend and attained desirable goals in this sense.<sup>226</sup>

Other processes must however be carefully thought of before being chosen as some methods can be greatly disadvantageous. For example, through the landfill methodology, gases could possibly seep through the soil and evolve into the atmosphere. In addition to that, in contemporary times, vital issues such as the need to utilise present resources (including land) in a prudent manner for the benefit of future generations, within the greater objective for sustainable development, has gained a priority in global and national environmental ethics. Landfill could lead to a situation where most of the land is not conserved for these future generations, but used in burying waste.<sup>227</sup>

The article also makes provision for the establishment of conflict resolution and appeals procedures. These will aim at resolving potential conflicts which relate to trade-offs between socio-economic consideration and the impact on air, water and land.<sup>228</sup> The fact that this strategy makes provision for dispute settlement mechanisms in case of prospective disputes between businesses advocating the unfettered free trade principle and the environmental protection adherents, especially, the NGOs, also gives practical meaning to its provisions being discussed here.

The Strategy also recognises the role of South Africa in fulfilling its requirements in accordance with Basel.<sup>229</sup> Thus, this country should enact relevant municipal legislation. This is one of the three aims of hazardous waste management, as spelled out in this paper. Indeed, this is only in order and is actually one main aim of this thesis, for it would be difficult to envisage a situation where a country is party to an international convention and in the same vein, enacts municipal law which contradicts the ideals of such a convention.

This law also requires co-ordination amongst various departments dealing with environmental issues, and also, the various authorities and the administrative functions. This stems from the necessity to regulate waste in an integrated manner. This implies that:

- The requirements of other authorities concerned must be taken into account;
- Provision should be made for one-stop-approval;
- The effect of the waste must be considered in the context of its impact on the environment as a whole.<sup>230</sup>

Once again, given the existing problems of fragmentation and the incoherent way in which these authorities operate, this stipulation could help resolve these deficiencies.

The Strategy also empowers the Minister to designate classes of waste and make regulations to control the generation, trade, transport, treatment and disposal of any class of waste.<sup>231</sup> Though it may be advisable to authorise the Minister to make regulations relating to the classification of wastes, some guidelines should also be set by the recommended Inter-Agency Scheme, otherwise a situation occurs where different ministers give subjective definitions of what constitutes waste at different times, thereby creating many discrepancies.<sup>232</sup>

The Strategy deems it important to promote the participation and consultation of all interested and affected parties in the formulation of government policy, and further development, following the Integrated Environmental Management (IEM) concept.<sup>233</sup> Here, it is only reasonable that parties such as citizens in neighbouring communities, whose health and lives are affected by these issues, have a say in issues such as a convenient location for dumping waste, *inter-alia*.

The main aim of hazardous waste management, as spelled out in this policy, is to manage the effects of treatment, generation, transportation and final disposal of hazardous waste in such a manner so as to reduce environmental damage to the environment,<sup>234</sup> to operate an efficient and effective regulatory system which minimises efforts and costs associated with

hazardous waste management<sup>235</sup> and to ensure that South Africa's municipal laws conform to Basel.<sup>236</sup>

#### 5.5.2 Unpublished Proposed Regulations for the Import and Export of Hazardous Waste (undated)

With a view to giving domestic effect to the provisions of the Basel Convention, the DEAT produced a set of guidelines for regulating the importation of toxic waste into this country. However, years after this country's ratification to Basel, these regulations are still yet to be enforced.<sup>237</sup>

#### 5.5.3 The White Paper on Integrated Pollution and Waste Management for South Africa (2002)

This Paper identifies the problems encountered in waste management, factors responsible for hazardous waste importation, proposes solutions and states the principal approach to be adopted in resolving problems associated with hazardous waste mismanagement.

The existing problems in hazardous waste management, as elucidated by the White Paper (2002) are the lack of priority afforded to waste management,<sup>238</sup> unacceptable safety, health and environmental practices for pollution and waste management,<sup>239</sup> the absence of integrated waste management options<sup>240</sup> and insufficient involvement and empowerment of people.<sup>241</sup>

With a view to rectifying this situation, the White Paper has two main objectives in dealing with waste issues, namely:

- (a) to inform the public of the government's objectives, and how the government intends to achieve them, and
- (b) to inform government agencies and State organs of these objectives, and their roles in achieving them.<sup>242</sup>

This Paper, by proposing the following so-called "end of pipe" methods in managing waste issues, represents a fundamental departure from past governmental practice of dealing with waste only after it is generated:

- (a) pollution prevention;
- (b) waste minimization;
- (c) cross-media integration;
- (d) institutional integration, both horizontal and vertical, of departments and spheres of government; and  
involvement of all sectors of society in pollution and waste management.<sup>243</sup>
- (e) It also adopts the integrated pollution and waste management approach, that is a holistic and integrated system and process of management, aimed at pollution prevention and minimisation at source, managing the impact of pollution and waste on the receiving environment and remediating damaged environments. In addition to this, management of wastes will cover the entire waste cycle, from “cradle to grave”, including the generation, storage, collection, transportation, treatment and final disposal of waste.<sup>244</sup>

In adhering to this approach, the Paper adopts the following three principles specific to pollution and hazardous waste management, which are also important for hazardous waste trade:

- Due attention must be paid to the potential transboundary effects on human health and the environment;
- Any institution which generates waste must be mindful of the duty-of-care principle and always accountable for the management as well as the disposal of this waste. Consequently, such an institution will be penalised appropriately for any and every transgression committed;
- All industrial, agricultural, domestic/household and governmental operations in South Africa will be subject to the same integrated pollution and waste management regulatory system, that is, the universal applicability of regulatory instruments system.<sup>245</sup>

#### 5.5.4 National Waste Management Strategy (1999)

This ten-year strategy and project covers the period up to the year 2010. It was compiled by the DEAT and the DWAF, in consultation with a wide range of stakeholders, including government at all levels, NGOs, Community Based Organisations, labour, business companies, industry, and the mining sector.<sup>246</sup>

This followed the publication of the above-mentioned White Paper. Such a co-ordinated and co-operative approach of various mechanisms working on toxic waste issues, as illustrated here, must be encouraged under the proposed Inter-Agency Permit Scheme.<sup>247</sup>

Though the Strategy sets forth “integrated pollution and waste management” as its main purpose, the overall impression is that it seems to dwell more on waste minimisation.<sup>248</sup> In this regard, it adheres to the preventive approach. This is exemplified by the following cases. Firstly, it states its objective, namely, a paradigm shift from the hitherto fragmented and uncoordinated waste management approach, to a holistic and integrated approach when managing waste.<sup>249</sup> This approach, in turn, extends to the entire life span/cycle of the waste, that is, the cradle to grave approach, meaning the prevention, generation, collection, transportation, treatment and final disposal of waste. This new method of integrated waste management thus focuses on waste minimisation, rather than the pre-existing impact management and remediation method.<sup>250</sup>

Secondly, according to the definitional terms provided by the Strategy, the “integrated pollution and waste management”, is a holistic and integrated course of action,<sup>251</sup> as the name suggests. The following practical measures are specified within the framework of this course of action: the institutional, infrastructural and technological support, as well as human and financial resources required to establish and implement an integrated waste management strategy which commits all the people of South Africa to preventing and minimising waste generation at source in order to protect human health and the environment and to develop resources in a sustainable manner.<sup>252</sup> The fact that all sectors are required to adhere to these requirements also ensures that in all processes, from industrial through agriculture to household activities, the Strategy reinforces the preventive principle.

Another notable feature of the Strategy is its adoption of the waste hierarchy approach, which has gained international acceptance as a rigorous approach to integrated waste management.<sup>253</sup> This is described as follows:

#### Waste Hierarchy



Cleaner Production	Prevention Minimisation
Recycling	Re-Use Recovery Composting
Treatment	Physical Chemical Destruction
Disposal	Landfill

The Strategy provides that reviews concerning the successes and failures of the Strategy will be conducted once in every five years.<sup>254</sup> With regard to the ten decade lifespan of the Strategy, this means that it will be assessed twice. One is of the opinion that this may not accomplish very positive results. At least, these reviews can be made once in every year, or at least, once in every two years, to identify what positive accomplishments are being made at each stage, what challenges lie ahead and so on.

Furthermore, the Strategy does not spell out any penalties for those who resort to flagrant abuses of the many laws geared towards integrated waste management in this paper.<sup>255</sup>

Some commendable aspects of the Strategy are the fact that it provides for educating the public on hazardous waste issues, since public participation is important in these matters. This it provides for, while specifying the way in which such illumination will be implemented. These include the development of a National Waste Management Strategy awareness programme at the three levels of government, as a prerequisite for the implementation of the strategy. This will be enforced at an early stage in the development plans. General awareness campaigns and the inclusion of these issues in the curricula of tertiary education will also be implemented, as part of the awareness campaigns.<sup>256</sup> Such crucial measures could be emulated by the three case study countries.<sup>257</sup> It may be proposed

that these be included in the proposed legislation, to reflect in the model law. This could complement the model law.

This Strategy also presents the strategic goals of the Draft White Paper on Integrated Pollution and Waste Management for South Africa (1998) as follows:

- Effective institutional framework and legislation;
- Waste minimisation, impact management and remediation;
- Holistic and integrated planning;
- Participation and partnerships in Integration Pollution and Waste Management Governance;
- Empowerment and environmental education;
- Information management; and
- International co-operation.<sup>258</sup>

#### 5.5.5 Minimum Requirements by the Department of Water Affairs and Forestry (1998)

##### (a) Overview

In South Africa, agencies such as the Centre for Integrated Waste Management assembles specialists with expertise in diverse fields such as economics and engineering, to offer them training on the most practical, cost-effective and innovative approach they need to adopt in dealing with waste. These Agencies offer training in areas such as waste classification, legislation and policy as well as waste minimisation. The relevance of this to this thesis is that such skills and training would be applicable to situations where these agencies intend not only to treat waste produced locally, but also, to circumstances where they may desire to import and export toxic waste. In each case, such companies would then ensure that such waste has been adequately treated in strict compliance with environmentally sustainable standards.<sup>259</sup>

While providing these services, these companies and agencies must all adhere to certain vital conditions to ensure that the operation of these facilities do not cause any pollution. These conditions have come to be known as the “minimum requirements” of the Department of Water Affairs and Forestry. This concept is embodied in its three policies: (a) Minimum

Requirements for Water Monitoring at Waste Management Facilities; (b) Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste and (c) Minimum Requirements for Waste Disposal by Landfill.<sup>260</sup>

(a) Minimum Requirements for Water Monitoring at Waste Management Facilities (1998)

The point of departure in this policy is on “what could be reasonably achieved”, with due regard to the South African situation, both in the general and specific sense.<sup>261</sup> The term “reasonably achieved” is not really clear and much more light could be thrown on this. For example, these requirements must spell out its principles, so that water monitoring at waste management facilities be conducted in such a way that there is no contamination whatsoever to the environment.

The policy also pays particular attention to other principles such as the “baatnec” (best available technology, not entailing excessive cost) throughout the document, and also takes into account pre-existing governmental policy documents such as the Environmental Conservation Act, Act 73 of 1989 (which deals with general and hazardous waste and activities under the EIA regulations), the Environmental Management Programme Report (EMPR) of the mining industry, the Water Services Act, Act 108 of 1997 and the National Water Bill of 1998. One commendable aspect of this document is that while endorsing the approach adopted in these instruments, it also advocates for the improvement of these laws to conform to changes in new policy documents and improvements in monitoring techniques.<sup>262</sup>

Though the Department’s water quality management policy serves both surface and groundwater resources, the special and delicate nature of groundwater and its great likelihood to be contaminated, has necessitated the adoption of a more specific mission for groundwater quality management by the Department thus:

“To ensure that groundwater quality is managed in an integrated and sustainable manner that provides adequate protection in the resource and secures the supply of acceptable quality for all recognised users”.<sup>263</sup> This mission is underpinned by three goals of minimising, at source, the impact of development on groundwater quality by the imposition of regulating controls

and incentives, managing such impacts as do inevitably occur in such a manner to at least ensure fitness for use of groundwater by recognised beneficial users and to restore groundwater quality, where practicable to at least fitness for use by recognised beneficial uses.<sup>264</sup>

South African agencies such as the Centre for Integrated Waste Management, who are desirous to design Waste Monitoring Systems, must satisfy *inter alia*, the following procedural requirements:

- (a) Obtain information on disposal practices, volumes and type of waste;<sup>265</sup> Document data or enter it into the computerised database, WasteManager, for processing and interpretation. Interpret data, extract tables and graphs, identify and investigate anomalies;<sup>266</sup>
- (b) Train on-site personnel in the use of the database, the sampling equipment and in the interpretation of the data. Provide facilities for the client to report to the Department in terms of their permit conditions.<sup>267</sup>

## **5.6 Hazardous Waste Trade Laws in South Africa, Ghana and Côte d'Ivoire**

### **(A) South Africa**

#### **5.6.1 The Environment Conservation Act (Act 73 of 1989)**

The Act generally requires manufacturing processes to adhere to non-polluting modes of production including the use of waste prevention and environmentally-friendly mechanisms.<sup>268</sup> Pollution, as indicated in Chapter 3, could to a large extent, result from the environmentally unsound management of toxic waste during toxic waste trade.<sup>269</sup>

Regarding discussions in this Chapter of this thesis, the relevant paragraph headed Pollution Control under the Act states thus:

By formulating an effective comprehensive strategy, promulgating appropriate legislation, establishing and maintaining norms and standards, applying the best practicable environmental options based on the most suitable available technology, fostering positive attitudes among industrialists and the public and participating in international co-operation, pollution of whatever nature should be prevented.<sup>270</sup>

Furthermore, the elements of responsibility, accountability, minimisation, treatment and re-use should be prioritised in the national strategy for integrated waste management and integrated pollution control.<sup>271</sup> While importing toxic waste into South Africa for disposal, this should be done with due regard to international agreements, and acceptable levels and standards.<sup>272</sup> This is remarkable, as it seeks to ensure that free trade in waste does not contaminate the environment of this country. Under the model law on toxic waste trade, these same provisions would apply to parties who wish to *export*<sup>273</sup> toxic waste outside South Africa. Coupled with these provisions, this proposal ensures that when importing and exporting toxic waste, South Africa fulfills its international obligations under the Basel Convention for the environmentally sound management of such waste.<sup>274</sup>

As far as waste disposal sites are concerned, the Act has commendably made many requirements for prospective parties to abide by. This is discussed below and could certainly be borrowed by the other two case study countries. This Act further requires any person who desires to establish, provide or operate a disposal site to apply for a permit by submitting a completed form in accordance with Section A of the Department of Water Affairs and Forestry in whose area the disposal site is situated.<sup>275</sup> With relevance to this thesis, such a provision would also apply to parties who would wish to import toxic waste into South Africa for recycling.

The flexibility in this Act is evident in its requirement that should permission be refused to any such applicant, he/she/the relevant company is entitled to make an appeal, within 60 days in which the appellant was notified of the decision. Such an appeal must be accompanied by an amount of 500 Rands. The appellant must fully elucidate the grounds for such appeal. The Minister may request in writing that the appellant supply within 28 days from the date of the request, such further particulars as the Minister may deem necessary to enable him to consider the appeal. It is important to note that the Department is entitled to request for further information from the applicant, regarding the application.<sup>276</sup>

The permit requires parties to provide information including the name and address of the party/parties who wish to operate such sites, the name and address of disposal sites, the

current use of land which is adjacent, the types of waste and their respective quantities in terms of contents of flammable solids, flammable liquids oxidizing agents toxic wastes, for example.<sup>277</sup>

The Act also provides guidelines for controlling and managing communal and general waste disposal sites which are small in nature, as far as their location, planning and operation, for instance, are concerned.<sup>278</sup>

#### 5.6.2 The National Environmental Management Act (Act 107 of 1998) and Integrated Pollution Control

From the approach it adopts to waste management, this Act could be said be a statutory concretisation of certain earlier approaches to waste management, as enshrined in the National Waste Management Strategy and White Paper.<sup>279</sup>

To this end, the Act establishes certain soft law principles of international environmental law which must be adhered to, when are vitally important to any given approach to the Integrated Pollution Control (IPC). These are the polluter pays, preventive and the precautionary principles.

This principle, analysed in Chapter 3 while linking it to the regulation of toxic waste trade, is defined in this Act as “the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment”.<sup>280</sup> Simply put, he who causes pollution must assume responsibility for mitigating and rehabilitating for consequent damage caused. In such circumstances, neither government nor affected parties should be made to bear such costs. This is a useful tool for present purposes, since it would enable companies to be mindful of their processing activities and they clean up for their damage.

The NEMA also defines the preventive principle thus: “...that pollution and degradation of the environment (be) avoided, or, where they cannot be altogether avoided, are minimised and remedied”.<sup>281</sup>

The third principle, the precautionary principle, is conceived by Act 107 as follows: "...that a risk-averse and cautious approach is applied, which takes into account the limit."<sup>282</sup>

For the purposes of this thesis, the principles in paragraphs 4 and 5 of Chapter 5.6.2 here, are desirable principles of foresight which ensure that the importation and exportation of toxic waste and other environmental activity do not cause environmental perils. These, as indicated in Chapter 3.2.3, are more cost-effective, than the polluter pays approach, where harmful activity occurs and clean up of contaminated sites has to be subsequently effected.

This Act further deems a person not to be criminally liable or subject to dismissal, discipline, prejudice, or harassment, if he refuses to undertake any assignment on reasonable belief, in good faith, that the work poses an imminent and serious threat to the environment.<sup>283</sup> The relevance of this stipulation to South Africa's case is that in situations where employers do not take the welfare of the workers into consideration, as occurred in the case of *Thor*, or there are illegal shipments of toxic waste such as cupric arsenite and there are no necessary protective measures for workers working at the prospective importing processing plant, such workers are legally entitled to refrain from working under such environmental conditions. With respect to the principles of *locus standi*, class action and human right to a decent environment, such workers become entitled to effective legal action, and environmental justice is ensured thereby.

#### (B) Ghana

5.6.3 Examples : Pesticides Control and Management Act (1996) ; Mercury Law (1989, PNDCL 217) ; Petroleum Regulations (1959) and Safety Petroleum Rules (1959)

As indicated in the introductory chapter to this thesis, there is no fixed law in Ghana for regulating toxic waste imports and exports. Having just acceded to the Basel and Rotterdam Conventions in 2003, such a law should be promulgated in the foreseeable future.

At the moment, there are a multitude of laws, each of which regulate various aspects of different categories of toxic waste trade. For example, the Pesticides Control and

Management Act (1996) seeks to control, manage and regulate pesticides such as the Plant regulator, defoliant, dessicant and wood preservatives, industrial and agro-chemicals.<sup>284</sup>

The Mercury Law (1989) governs the import, purchase, sale or transfer of mercury, and covers mercury and quicksilver in this regard.<sup>285</sup>

The Petroleum Regulations (1959) regulates the importation, shipping, landing and storage of petroleum. The Safety Rules (1959) aim at controlling the marketing installation-layout, plant and equipment, as well as handling of fire precautions and transportation. These Rules cover propane, butane, aviation and motor spirit, thinners, highly aromatic spirits and alcohols of synthetic resin type, turpentine, kerosene, gas, diesel and lubricating fuels and bitumen.<sup>286</sup>

From these three examples, it is evident that different categories of waste are regulated by different laws. Twenty-four other laws regulate different categories of chemicals, as indicated in a study by the BCRC.<sup>287</sup> It may be suggested that a specific law be formulated as in the case of Côte d'Ivoire. Furthermore, this law must cover every aspect and every type of toxic waste. Given the different levels of toxicity in each waste, it is appropriate to have different rules regulating each category. However, these must all be embodied in Guidelines, under one specific law. Regarding the categories which are banned *in toto*, these should be attached as Annexes to the model law, for easy reference. Such an Annex should also be applicable to the two other case study countries, so that implementing officers and the populace can make easier references, when necessary.

### (C) Côte d'Ivoire

#### 5.6.4 Law on Toxic and Nuclear Waste (Loi No. 88-651, 1988)

The principal aim of Ivorian legislation governing hazardous waste is to protect the public health and the environment against the effects of toxic and nuclear industrial waste of noxious substances. The fact that this law was enacted prior to the Bamako and Basel Conventions, demonstrates the commitment of the government of this country to environmental protection, and more specifically, to ensuring that there is no illicit trade in toxic waste. To this end, *Loi No. 88-651* of the Republic of Côte d'Ivoire prohibits all acts



pertaining to the purchasing, selling, importation, transiting, depositing and stocking of toxic nuclear waste as well as noxious substances in the whole territory of the country.<sup>288</sup> It is commendable that the Law forbids any acts which are geared towards bringing these substances into Ivorian territory, even if in transit, since the harmful effects of a given hazardous waste could occur within a short duration.

However, it must be added that the law could also extend to acts which export such substances. This could be done through necessary Annexes and Amendments. For instance, from research findings, it has been discovered that there are illegal exports of toxic substances such as PCBs from this country into Ghana.<sup>289</sup> If such practices are not terminated, what could happen is that as far as shipping these substances into this country is concerned, this is regulated very efficiently. However, banned substances could be sent to Ghana which shares a border with Côte d'Ivoire. When a disaster occurs in Ghana, it could inevitably affect the environment of Côte d'Ivoire then. From Sandoz and Seveso at least, it can be asserted that given the highly hazardous nature of some of these substances, they can not only cause damage to one territory, but also do spill over to neighbouring territories, where they contaminate the environment and all forms of life as well.<sup>290</sup>

Any person who makes an attempt to contravene any of the acts highlighted in this legislative instrument<sup>291</sup> or actually infringes this law shall be liable to an imprisonment term of 15 to 20 years. Additionally, such a person shall be liable to pay a fine ranging between 100 million to 500 million francs, which is equivalent to about US \$ 1.6.<sup>292</sup> In this respect, it is evident that the law foresees punitive measures for prospective offenders. Though these measures seem adequate, the fines could even be increased to US \$ 3 million. This owes to the fact that, given the great financial benefits which accrue from the toxic waste industry,<sup>293</sup> companies may be financially secure and could easily pay US \$ 1.6, without suffering serious consequences. The fact that this is compounded with a long prison sentence and makes attempts at committing these acts an offence, could also make the law more stringent. People thereby become more likely to abide by it. These are lessons for the model laws of the other two case study countries.

The strictness in enforcing hazardous waste trade laws is also another point which can be deduced. By imposing fines on contradictory acts, or an attempt to commit such acts, and by requiring that even for those acts committed abroad, offenders be amenable to justice,<sup>294</sup> the law seeks to prohibit to the greatest extent possible, environmentally destructive acts of this nature. It thereby prevents situations where its citizens go to other countries, possibly collaborate with other parties or by themselves and commit illegal practices involving toxic waste trade.

The Ivorian law further holds that if such contradiction is committed within the framework of the activity of a juridical person, the criminal liability falls on every natural person, in charge or not, who because of his functions has responsibility for managing, supervising or controlling such activity.<sup>295</sup> This is timely in ensuring that officers in charge of these substances discharge their duties properly. To this, it may be added that they should regularly receive sufficient training in these matters, through the BCRC Dakar for example.<sup>296</sup>

The law holds such a person jointly and severally liable with the guilty party for the payment of fines, compensation and costs.<sup>297</sup> Where such acts are committed in other countries, the parties may still be liable, notwithstanding the provisions of the Code of Penal procedure concerning felonies and misdemeanours committed abroad.<sup>298</sup> The provisions stipulated by articles 117 and 130 of the Penal Code regarding extenuating circumstances are not applicable.<sup>299</sup>

The law also recognises that the guilty party should bear the costs if removal. It further entrusts the judge in any case involving hazardous waste disposal to order the removal of toxic and nuclear industrial waste and noxious substances as well as the restoration and reclamation of the sites.<sup>300</sup> From this, it could be perceived that even though the law could be said to adhere to the preventive principle by forbidding the importation of toxic substances into the country, should such practices occur, it reasonably adopts the polluter pays principle by requiring that those responsible for such damage clean up the sites and bear the costs incurred thereon, and not the surrounding community or the government. To give full effect to the polluter pays principle, this law could specifically include the need for retroactive liability, which is discussed in Chapter 5.3.4.

One recommendation for a better functioning of this law is that, it should state what the position of the government with respect to toxic waste is. This could be effectively placed in the preamble. For example, does this country, under national sovereignty, deem it prudent to trade in certain forms of toxic waste, which may for instance, be good for its car battery industry, *inter-alia*, or would it like to ban these substances altogether?

From this proposal emanates another, which holds that *Loi No. 88-651* and those of the two other case study countries, that is, the specific model law regulating toxic waste trade, should in its first Section after its preamble, include a specific definition of hazardous waste. Though *Loi No. 96-766*(1996) defines hazardous waste as indicated in Chapter 5.6.5 below, it may be appropriate to include this definition in the specific law governing waste trade as well, rather than in the general environmental code, *Loi No. 96-766* alone. The characteristic features of such waste, as well as its effects, could also be highlighted in *Loi No. 88-651* and the law regulating toxic waste trade in the other two case study countries, as indicated in Chapter 6 of this thesis. This gives more uniformity and ensures that parties wishing to trade in toxic waste, are illumined to the greatest possible extent, on the implications and requirements of such an enterprise.

Furthermore, while seeking to simultaneously avoid protectionism and witnessing the harmful effects of toxic waste as discussed in Chapter 5.2.4, it is necessary to incorporate into the suggested model law, some facts, based on accurate scientific evidence, about the effects of such substances on the environment.

The Ivorian law further lacks a stipulation requiring strict import and export licenses to be obtained by people who wish to engage in such forms of trade. The need for this could be a worthy point, given the potential hazards of these substances. Such points will serve as easy reference for anybody, wishing to engage in such wastes.

The incorporation of the *locus standi* principle, as a very important part of the law in the three case study countries must also not be lost sight of. This is lacking in the Ivorian and Ghanaian situations, is present in the South African constitution and must still be specifically

included in the proposed model law of this thesis. There is also the need for all three countries to provide for class action, which has been discussed in Chapter 3.2.5 as well. Given the correlation of environmental rights to human rights, as discussed in Chapter 3.2.7, these must not be neglected. By so doing, it will be easier for human beings in these countries, whose rights to life or interest in land are affected, or are likely to be affected, to seek effective legal redress if illegal toxic waste practices can cause such perils, in these situations.

It may also be proposed that every member of the Inter-Ministerial Committee to highlight the workings of the Inter-Agency Permit Scheme. This scheme should necessarily comprise the Ministries of Trade, Environment, Agriculture, Health and a few environmental NGOs, to deal with hazardous waste importation and exportation issues, when the need arises, convene meetings on a regular basis on these matters, to identify encountered successes and existing challenges in this field. Based on this, they can then chart the way forward.

To compliment the workings of this scheme, various associations could be formed by companies. For instance, in Uganda, the NEMA has established the Uganda Refrigeration Association which trains its members (owners of refrigerators and cooling systems) on how to recycle the gases emitted from their machines.<sup>301</sup> Experience-sharing could enable the three case study countries to learn from this example, for better management of environmentally hazardous materials when engaged in their toxic waste trading practices.

Furthermore, according to the model law, companies must be required to submit to the Ministries and Department of Environmental Affairs within the respective countries, the sort of hazardous waste which they are generating in every sphere and how they are managing them. Inventories could be taken by the Inter-Agency Permit Scheme to quantify the exact amounts in this respect, and submit reports with such information to the respective Basel centers, in Pretoria and Dakar.

The respective model laws could also be complemented by a stipulation requiring a special fee on the sale of every new computer, TV or other substance containing hazardous substances. This could actually enable manufacturers to produce goods which are less

hazardous in nature. This fee could also assist cities and trash companies to finance the collection and recycling of these substances. In addition to establishing labels which indicate the constituent hazardous materials of a given computer, TV, or other similar product, companies selling such items could also help in a public education campaign, through which they persuade consumers to recycle these goods.<sup>302</sup>

For transparency and easy referencing, it is further recommended that the respective ministries of environmental affairs also publish a list of toxic substances which are banned and those which are permitted for trading purposes, but are subject to regulations. This will serve as easy reference for people who use these substances. It is further suggested that these ministries enact stricter regulations over the importation of discarded electronic appliances from foreign nations, even ban these substances or continue using them until such time that worthy alternatives are found. This owes to the toxicity of these substances, which range from old television sets, to xerox machines and video cameras. Such substances contain mercury, barium and cadmium, and consequently, cause health problems such as lung damage and brain swelling, upon being emitted into the air, water and soil.<sup>303</sup>

5.6.5 Loi No. 96-766 (du 3 Octobre 1996 portant Code de l'Environnement; The Environmental Code is enshrined in Law No. 96-766 of 3<sup>rd</sup> October 1996)

This law defines toxic waste as any matter in solid, liquid or gaseous form, with imminent capacity to contaminate human health and the whole ecological base.<sup>304</sup>

While stipulating measures which aim at protecting the environment, this law provides that every person who engages in an activity which may impact the environment, takes into consideration, precautionary measures which seek to protect the environment.<sup>305</sup> It may be recommended that the need for precaution be specifically incorporated into the model law on toxic waste. In the case of La Côte d'Ivoire, it could be indicated that this requirement is in accordance with this stipulation of *Loi No. 96-766*. It may also be prudent to give a succinct explanation of what the precautionary principle entails in managing and trading of toxic waste, as indicated in Chapter 6(d) of this thesis.

*Loi No. 96-766* also provides for the preventive principle, by requiring that all forms of waste, particularly medical waste, be collected, treated and eliminated in an ecologically

rational manner, in order to prevent potential environmental contamination to human and environmental health.<sup>306</sup> In this regard, the importation of crude petroleum from Nigeria to be refined in Abidjan for re-export to Mauritania and other African countries, as discussed in Chapter 5.4.15. This stipulation could be also incorporated into the model law, while elucidating the meaning of certain phrases, such as “ecologically rational manner”, which means that these forms of waste must be disposed of in a way which does not damage our environment and by people with relevant expertise in waste management. Furthermore, each category of waste must be subject to the appropriate forms of waste treatment, for instance, as provided for, by the South African cases, discussed in Chapters 5.5.4, 5.5.5 and 5.2.2(c) above.

The law, just as *Loi No. 88-651*, further makes provision for the polluter pays principle, by requiring persons who harm the environment to be made responsible for paying the necessary taxes required to clean up for such sites.<sup>307</sup> Though this is commendable, imprisonment has also been provided for, in cases where environmental disasters occur from hazardous waste mismanagement. This is relevant to the model law, as it should ensure that officials from wealthy companies who may have no problems making such payments, are still mindful of their activities, since they may have to serve long imprisonment terms. It may also be stated in the model law that the preventive/precautionary principles are the main targets of the law. However, if this is not adhered to, then, the polluter pays principle may be enforced.

This law further provides for the fundamental right of every human being to reside in a healthy environment. In addition to making this provision for a human right to a decent environment, it is also noteworthy that the law imposes a responsibility on every individual to ensure that the environment is kept healthy for the benefit of future generations as well, thus adhering to the principle of sustainable development.<sup>308</sup> The lesson to draw from here is that while the model law would make the human right to a decent and healthy environment a stipulation, this law would further require that the every person also endeavour to ensure that the environment is kept clean as well, when handling toxic waste. Here, it is specifically recommended that the law prohibits dumping of used petroleum oil and the littering of any other substance for that matter. Any individual who contravenes such a law should be made

to pay a prohibitive fine. In addition to the aim of keeping the environment clean, another aim of this requirement would be to arrive at the objective of sustainable development, through the precautionary principle for example, because one may never know about the inherent potential hazards of a given substance. It may then be better to prevent such a substance from being thrown anywhere. The return and deposit system could also be used to encourage individuals from carelessly dumping waste.

It is further suggested that any court which rules on any matter regarding these environmental issues takes into consideration, scientific knowledge, experiences from others countries and the rulings of international instruments.<sup>309</sup> It is hereby recommended that these scientific guidelines be clearly indicated, that is, the Basel and WHO Guidelines, for instance. Such a requirement could actually ensure that the rulings of this country on toxic waste practices are not protectionist. This has been specifically discussed in Chapter 6 of our model law, on scientific evidence.

Following the requirement of this law that every individual be eligible to gain access to information on the state of the environment and to decision-making procedures affecting the environment,<sup>310</sup> it may be also proposed that this be made a requirement of the model law. Accordingly, individuals should be permitted to gain access to information as well as decision-making process on matters of toxic waste.

Every activity which generates toxic waste must be audited and presented to the competent national authority, as required by the law.<sup>311</sup> So far, this has been accomplished for the purposes of establishing the projects for medical waste and PCBs. However, it could be extended to other forms of waste as well, especially, since each category has to be managed and for such management to occur, it is necessary to have an accurate estimate of the volumes of hazardous waste which are being generated.

## **5.7 Conclusion**

In summary, the discussions in this chapter could be put in the following key points:

Not all waste amounts to residue which should be simply discarded, as seen for example, in the case of lead scrape, which can be recycled for car batteries. The definition of waste is therefore crucial, as it should clearly define which categories of waste such as lead scrape can be imported for recycling, in order to produce car batteries, and which kinds of waste must be rejected altogether. What should be encouraged here is the importation of certain forms of toxic waste, reprocessing and recycling them in an environmentally sound manner, so that neither workers nor surrounding environment are affected.

Hazardous waste mismanagement and importation is not peculiar to South Africa, Ghana and Côte d'Ivoire, but also, to third world countries as a whole. In marginal cases, some parts of the first world even witness this. Toxic waste dumping does not only occur from the first to the third world, but also between third world countries themselves. What is needed here is a very stringent tightening of border controls and legally accountable regime for customs officers.

Furthermore, the illicit importation of hazardous waste, when they occur from the first world into the third world, must not be attributed to first world governments, but to unscrupulous businessmen who usually do not abide by strict environmental laws of developed countries. As evident in the Canada/India case for example, the government of Canada, after ratifying Basel, was not even aware that such shipments were occurring and fined the two companies involved, upon discovery of this case. Rather, the problem sometimes also lies with corrupt private businessmen. Once again, the solution is to tighten laws by punishing these people severely if they contravene these laws or purport to engage in such acts as well.

Factors responsible for toxic waste trade imports into the three case study countries (and other developing countries) range from monetary gains, the correlation between poverty and waste, lack of expertise in hazardous waste management, low public awareness, fragmentation of relevant laws as well as lack of co-ordination between governmental departments dealing with this issue. Solutions to these problems include the need for governments of third world countries (and industrialised ones for that matter) to reflect on how to dump waste destined for final disposal, in remote areas where nobody lives.



Then again, these developing countries must organise more workshops and train more students and civil servants in matters relating to the administration of toxic waste trade, with the continued assistance of the WTO and UNEP, for example. In the advent of sustainable development, the WTO Institutes in Nairobi and Casablanca could in their curricula, advisably incorporate hazardous waste trade issues within the context of the trade and environment debate. Participants to these sessions should be required to share information with these international offices, other colleagues within the regional and municipal setting, as well as the public. This could be done through the recommended schemes in the next two paragraphs below.

Toxic waste issues could be included in primary school education programmes, to help rectify the low levels of public awareness in apprehending illegal imports and exports of toxic waste trade.

Within each of the three case study country's ministries/departments which deal with environmental issues, there should be the establishment of one central government agency, that is, the Department of Waste Management. Waste management is an important field requiring a considerably great degree of attention. In the face of this, a bleak outlook exists within all three case study countries, regarding the existent administrative capacity and legislative framework dealing with these matters. Hence, such a proposal seems logical.

There should also be periodic meetings and a greater deal of information-sharing amongst the various governmental departments which deal with toxic waste issues under a proposed Inter-Agency Scheme, to discuss the various aspects of their tasks and ensure uniformity in this regard. Officials from the Ministry of Trade should also be a part of this team, with at least, two environmental NGOs as well as other agencies, which work on toxic waste regulation. Such a scheme could resolve the current problem of the lack of collaboration on the part of governmental ministries with each other, and also, between these ministries on the one hand and environmental NGOs, for instance. Though such schemes are supposed to exist in the three case study countries, these recommendations could make their work more effective.

While Côte d'Ivoire has enacted a law on toxic waste trade regulation, Ghana and South Africa are still in the process of developing their laws in this regard. At the moment, there are fragmented pieces of legislation, policies and strategies in the two latter countries, especially in Ghana. However, South Africa is ahead of Ghana, as the former has already published a number of policy papers and strategies in this regard. Soft law international environmental principles discussed in Chapter 3 are particularly reflected in these policy instruments within South Africa. What is needed is one specific and binding law on these matters. Having just acceded to the Basel Convention and ratified the Stockholm as well as the Rotterdam Conventions, Ghana is yet to develop its policy papers and model law from there. It could actually learn a lot of lessons from South Africa in this regard. In the case of Côte d'Ivoire, amendments, as indicated in this Chapter, could still be made for a better functioning of the law.

Some proposals for a better functioning of the law on toxic waste in Côte d'Ivoire include the need to clearly define in its preambular clause, the government's position with regard to toxic waste trade, that is, regulate or ban altogether, an explicit definition of what amounts to toxic waste, the incorporation of scientific evidence into its laws and in the case of Ghana and South Africa, the provision for punitive measures. This has been sufficiently dealt with, in the law of Côte d'Ivoire.

In comparison with South Africa which has many NGOs such as Groundwork, GEM, EJNF, Institutes, Industrial Associations for managing waste from different sectors and Universities which teach these issues, Ghana and Côte d'Ivoire face institutional constraints as far as this is concerned. Hence, the other two countries could liaise with South Africa, in the relevant ministries and departmental institutes of Universities, for more lessons to be borrowed, learned and bent in this instance. There should be more environmental NGOs throughout parts of the two case study countries especially, in regions which share borders with neighbouring countries, for effective monitoring of toxic waste. The Basel Centres could also be contacted for more enlightenment in this regard.

The incorporation of the *locus standi* principle as a very important part of the law in Ghana and Côte d'Ivoire must also not be lost sight of. So far, this is present only in South Africa. The model laws of the three case study countries must also include the availability of class action. The provision of punishment to offenders makes them liable to any individual or group of individuals whose rights are threatened in these matters.

Furthermore, customs officers must receive adequate training to be better equipped to monitor the importation of these substances into their territory. Specialists could also be trained for operating incinerators and other forms of waste.

It is further suggested that the respective governments of each country establish an auditing system for constantly taking inventories of the amount of waste generated by each company which produces waste. This will cover the whole life cycle, from the moment of generation to disposal and could form part of a global mechanism for auditing waste. In this respect, this conforms to Hilz's proposal for a worldwide databank on toxic and other wastes, as well as inventory methodologies and data collection on domestic waste generation, modeled on initiatives by many European countries and UNEP.<sup>312</sup> For present purposes then, it is also necessary that the proposed model law has a requirement for generators and handlers of hazardous waste in businesses to submit relevant information to the government and the public, except where revealing such information may affect business interests. A format with the pertinent details on the information required should be provided by the Inter-Agency Permit Scheme.

Governmental support is highly recommended for the waste recycling projects to be feasible, and also, for the proposals being made at this point, to be a possibility. Ministries, NGOs and companies might consider prioritising these issues, presenting the relevant budget and presenting these to the Government, for necessary approval and support.

The laws of these countries governing toxic waste could also ban not only toxic waste importing, dumping and so on, but must also ban the exportation of toxic waste which are classified as banned, under the model law. Given the transboundary movement of toxic

waste, the converse might mean that these substances are exported and then spill over into another territory. This may even affect the country, from which such exports took place.

The Ivorian law has commendably forbidden not just the importation of these substances, but also, the transiting. This is very important, because given the inherent dangers of certain forms of toxic waste such as PCBs, it is necessary that they are not permitted for the slightest moments possible on a given territory. So that in this case, the transit of such substances could also be forbidden in the model law.

It may be highly desirable for the three case study countries (and even those of the continent) to harmonise the definition of hazardous waste, to take into consideration, the financial implications as well. There must also be a co-ordination of the various Inter-Agency Permit Schemes in these countries, to implement toxic waste trading issues. This could facilitate trading in these substances and help eradicate barriers in intra-African toxic waste trade.

There should be an Annex, which should be transparently attached to the model toxic waste laws, indicating which categories of waste are to be banned and which ones are to be imported, as indicated in Annex 4. Additionally, there should be policy guidelines indicating which sectors generate or use which forms of hazardous waste. For instance, asbestos is useful for roofing purposes, PCBs in electrical transformers, CFCs in refrigeration and so on, then state which is to be banned, what is substituted for the ban or phased out products and so on. Furthermore, attached to this law must be a list of definitions of the legal terms in this law in comprehensible language which laymen would easily grasp, thereby enabling them to abide by the requirements of the model law.

An efficient model law on toxic waste trade regulation must take the needs of the public into consideration. This can be done by soliciting their views on these matters, before finally enacting the law. This approach has been adopted by South Africa and is worthy of emulation by Ghana and Côte d'Ivoire.

Without wishing to undermine the work of the Departments of Environmental Affairs in South Africa, Ghana and Côte d'Ivoire which are moving forward in a positive direction, it must be emphasised that the role of international organisations such as UNEP and Greenpeace in dealing with hazardous waste is very fundamental. From the discussions above, the awareness campaigns generated by Greenpeace for example and one's personal participation in Greenpeace Cyberactive activities, these organisations do indeed adopt a proactive approach by alerting the world, and making appeals to the relevant municipal governments when there are potential shipments of these substances. It is advisable then that the national ministries must collaborate with such international instruments for an even better way of apprehending hazardous waste shipment in the foreseeable future and dealing with them, accordingly.

Under NEPAD, it may be timely to ensure that waste recycling centres are effectively established in the three case study countries and others within the continent, while ensuring that each country specialises in the collection, recycling and re-export of a particular form of waste. This ensures that each country derives a reasonable amount of income in intra-African toxic waste trade, while safeguarding the environment, without transforming others' environments into a dumping ground.

In addition to these recycling projects, at various municipal levels, the recycling of rubbish to derive methane gas on a sub-regional level at least, for cooking purposes, may be timely, instead of using firewood and coal. This could benefit rural and other sectors of the populace, and also prevent deforestation and pollution.

Coupled with labelling which substances contain which hazardous wastes, companies selling equipment and substances containing hazardous wastes could be required to pay a fee, upon sale of these items, to help in the collection and recycling of these items. They could further be asked to establish public education campaigns, to enlighten the public on why they should recycle these substances.

The recommended model law of this thesis should permit individuals to have a fundamental right to a healthy environment as in the case of South Africa and Côte d'Ivoire, but not

Ghana. At the same time, the law should impose a responsibility on these individuals for keeping their environment clean as in the case of Côte d'Ivoire, and for preventing them from dumping waste or other matter anywhere. The return and deposit system could be used to encourage them in this regard. These individuals should also be permitted to gain access to public information and decision-making affecting toxic waste regulation. Littering would be subject to the payment of prohibitive fines.

Liability for illicit trading practices should include the extended producer liability, retroactive liability and should also cover customs officers where necessary. Highly prohibitive fines and forfeiture of business licenses should form the basis of punitive enforcement.

Having discussed state policy and practice as these pertain to toxic waste trade regulation within the respective territories of the three case study countries, identified existing problems which lead to illicit imports in this sphere and made proposals for implementing more efficient laws, the next chapter now sums up the main principles which should serve as a useful guide for the model law of this thesis. This is based on recommendations made in this chapter and previous chapters as well. They therefore provide valuable inputs for policy guidance and the stipulations of the model law in Chapter 6(B).

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<sup>1</sup> Rebovich, DJ *Dangerous Ground The World of Hazardous Waste Crime* Transaction Publishers New Brunswick (USA) and London (UK) (1992); "Introduction, A New Arena for Criminality", in discussing Rachel Carson's *Silent Spring* (1962), a pioneering book on man-made threats to the environment. Here, he adds that though this scenario seemed to be far-fetched when it was depicted in 1962, certain communities in the USA have had to close down because of improper hazardous waste disposal, of which they have become gradually and painfully aware. Similar to earlier points in Chapters 1 and 3 of this thesis, one basic tenet of this thesis is hereby stressed again, namely that the scenario depicted by Carson's fable is only possible because of lax or non-existent legislation on toxic waste. Owing to this, the emphasis in this Chapter is to explore such trends in our three case study countries and more importantly, their respective existing legal frameworks which tackle this issue, with a view to re-thinking more effective measures for better municipal laws on hazardous waste.

<sup>2</sup> Housman, R et al *United Nations Environment Programme : The Use of Trade Measures in Select Multilateral Environmental Agreements* No. 10 Environment and Trade Series (1995), 132.

<sup>3</sup> Marbury, HJ, "Hazardous Waste Exportation: The Global Manifestation of Environmental Racism" (March 1995) *Vanderbilt JTL*, Vol. 28 No. 2, 251-294, at 255.

<sup>4</sup> Marbury (1995), *Ibid*.

<sup>5</sup> These two points are obtained from a report by Mrs. Ksentini, F-Z, Progress Report Submitted Pursuant to Commission Resolution 1997/9, "Adverse Effects of the Illicit Movement and Dumping of Toxic and Dangerous Products and Wastes on the Enjoyment of Human Rights", UN Commission on Human Rights, Progress Report of the Special Rapporteur, UN Doc E/CN.4/1998/10, 20 January 1998 (Commission on Human Rights, Fifty-fourth Session, Item 5 of the Provisional Agenda, available at <http://www.hri.ca/fortherecord1998/documentation/commission/e-cn4-1998-10.htm>, last accessed on 02/07/2002), 14; see also, Naldi, GN "The Regulation of the Transnational Trade in Hazardous Wastes: The

African Response", The SAJELP Volume 7 Number 2 December 2000, 218. On reasons why Africa imports hazardous waste, that is, economic considerations and other factors, see Chapter 5.3 of this thesis.

<sup>6</sup> Environmental Law in UNEP, UNEP Environmental Law Library No. 1, Nairobi, 1991, 14; see also, United Nations Environmental Programme, Global Environment Outlook Earthscan Publications Limited, London (2000), 29.

<sup>7</sup> United Nations Environmental Programme, (2000), Ibid.

<sup>8</sup> Housman, R et al (1995), Supra 2, fns. 2-7, at 132-134, where he quotes reports from the World Resources Institute, UNEP and other sources.

<sup>9</sup> UN World Commission on Environment and Development, Our Common Future, Oxford: Oxford University Press, 1987, 226-234; See also, Environmental News Service, "UN Official Criticizes Chemical Exports" (available at [http://www.ban.org/ban\\_news/un\\_official.html](http://www.ban.org/ban_news/un_official.html); undated; last accessed at 7/10/02 at 10:00 hours), for other estimates in this regard.

<sup>10</sup> Kummer, K International Management of Hazardous Wastes: the Basel Convention and Related Issues New York: Clarendon Press Oxford (1995), at 11. On other estimates other regions such as the developed world, as well as Central and Eastern Europe, see Kummer (1995), 10-12. See also, Murphy, SD "Prospective Liability Regimes for Transboundary Movement of Hazardous Waste", (1994) 88 AJIL, 24-75, at 29-32 for information concerning Data on Hazardous Waste Trade.

<sup>11</sup> See for example, the case involving illegal exports of zinc ash by Canadian businessmen to India. The Canadian government, upon discovering this acts, levied severe punitive measures on the businessmen, [http://www2.ec.gc.ca/enforce/soka\\_p\\_e.htm](http://www2.ec.gc.ca/enforce/soka_p_e.htm), "Two Companies Fined for Illegally Exporting Hazardous Wastes to India". See also, Chapter 1.1.3 under discussions on these trends.

<sup>12</sup> Agence France Press, "Japanese Man Jailed for Exporting Hazardous Garbage to Philippines", Tokyo, 12 March 2002 (Available at [http://www.ban.org/ban\\_news/japanese\\_man.html](http://www.ban.org/ban_news/japanese_man.html)); In May 2003, discussions with official from Ministry of Foreign Affairs in Banjul also confirmed the importation of hazardous waste from Hong Kong into the Gambia, when strict environmental standards have been taken into consideration.

<sup>13</sup> Glazewski, J Environmental Law in South Africa Butterworths (2000), 667.

<sup>14</sup> Article 2(1). See Chapter 1.1.1.

<sup>15</sup> Annex IV.

<sup>16</sup> Annex 1(1).

<sup>17</sup> Article 2. On perspectives concerning the approach adopted by Basel and Bamako to defining waste, see for example, Tladi, D "The Quest to Ban Hazardous Waste Import into Africa: First Bamako and Now Basel", CILSA Vol. XXXIII Vol. I (2000), 210-226, at 216-219, esp. p 218, on how national definition of waste may impede harmonisation when implementing countries' municipal laws under these two conventions. On the other hand, this thesis holds that the principle of national sovereignty may be the motivating factor for such an approach, see for instance, Chapter 6(B) of this thesis on preamble and definition of hazardous waste in three case study countries.

<sup>18</sup> Section 1.

<sup>19</sup> Fuggle and Rabie Environmental Management in South Africa Juta & Co. (1992).

<sup>20</sup> Glazewski (2000), Supra 13, 672.

<sup>21</sup> Fuggle and Rabie (1992), Supra 19, 513.

<sup>22</sup> Section 1, cited in Glazewski (2000), Supra 13, 673.

<sup>23</sup> Cited in Glazewski (2000), Ibid.

<sup>24</sup> See Fuggle and Rabie (1992), Supra 21, 512.

<sup>25</sup> Department of Water Affairs and Forestry, Waste Management and the Minimum Requirements, First Edition (1998), 1.

<sup>26</sup> Department of Water Affairs and Forestry (1998), Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste, Section 2-1, at 2-1 and 2-3.

<sup>27</sup> 1972 (4) SA 153, at 173.

<sup>28</sup> Ibid, at 157. This definition conforms to the definition of the Webster's Third International Dictionary, as discussed in this case.

<sup>29</sup> See for example, UK's definition of waste in Purdue, M "Defining Waste : R v Rotherdam Metropolitan Borough Council ex Parte Rankin; Kent County Council v Queensborough Rolling Mill Company", JEL, Volume 2, Number 2 (1990), 250-261, at 259; This is discussed in Chapter 1.1.1 of this thesis.

<sup>30</sup> See answers provided by these offices, under Annex 3, Findings to Questions 1 of Research Project, in (B), South Africa.

<sup>31</sup> See Answers of various governmental departments and offices such as the BCRC Pretoria, as opposed to views expressed by the NGOs, and Analysis of these ideas, Annex 3, under Findings to Questions 1 and 11, of Research Project, in all three case study countries.

<sup>32</sup> See Chapter 2.7.2 (a); See also, case studies below, Chapter 5.4. On definition of hazardous waste and uniformity, see also, Hilz, C *The International Toxic Waste Trade* New York: Van Nostrand Reinhold (1992), 14-16, especially on uniform approach adopted by the OECD countries in this regard.

<sup>33</sup> See Annex 4 of this thesis.

<sup>34</sup> Department of Water Affairs and Forestry, (1998), Second Edition, Supra 26, Section 2.3, at 2-3.

<sup>35</sup> Department of Water Affairs and Forestry, (1998), Second Edition, Ibid, Section 2.3.1.

<sup>36</sup> Department of Water Affairs and Forestry, (1998), Second Edition, Ibid.

<sup>37</sup> See for instance, Department of Water Affairs and Forestry, (1998), Second Edition, Ibid, Article 2.3, at 2-3, where the Department states that no wastes are truly "non-hazardous", since nothing is entirely non-hazardous per se.

<sup>38</sup> Department of Water Affairs and Forestry, (1998), Second Edition, Ibid, Section 2.4, at 2-4; Section 1.7, at 1-5. In this regard, the Department also adheres to the Cairo Guidelines (1987) and the FAO Guidelines on Prior Informed Consent (1985), both of which led to the formation of the Basel Convention in 1989, discussed in Chapter 3.4.1 (a) of this thesis.

<sup>39</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 2.4, at 2-4.

<sup>40</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid.

<sup>41</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 2.3.2, 2-3; see also, Department of Water Affairs and Forestry, *Minimum Requirements for Waste Disposal by Landfill* (1998), Second Edition, Article 3.2 (ii), 3-2 to 3-3.

<sup>42</sup> See UNEP, *Stockholm Convention on Persistent Organic Pollutants*, Text and Annexes (2001), especially Article 1. Principle 15 of the Rio Declaration stipulates that "Where there are threats of serious irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation". See Chapter 3.2.2 on precautionary principle.

<sup>43</sup> Research findings from <http://www.pops.int> reveal that South Africa ratified the Convention on 4<sup>th</sup> September 2002, Ghana's ratification was on 30<sup>th</sup> May 2003 and in the case of Côte d'Ivoire, it ratified the Convention on 20<sup>th</sup> January, 2004; See also, Chapter 3.4.4(d).

<sup>44</sup> Department of Water Affairs and Forestry (1998), Second Edition, Supra 41, on both publications.

<sup>45</sup> See generally, Department of Water Affairs and Forestry (1998), Second Edition, *Minimum Requirements for Waste Disposal by Landfill* (1998), Ibid.

<sup>46</sup> Department of Water Affairs and Forestry (1998), *Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste*, Second Edition (1998), Supra 44, Section 2.3.2, at 2-3. See also, Chapter 3.2.2 on precautionary principle.

<sup>47</sup> See Department of Water Affairs and Forestry, (1998) Second Edition, Ibid, Appendix 6.1, A6-1 to A6-7.

<sup>48</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 2.6.3, at 2-5.

<sup>49</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 5.5, at 5-8.

<sup>50</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 5.1, at 5-2; See also, Stonehouse, JM and Mumford, JD *Science, Risk Analysis and Environmental Policy Decisions* United Nations Environment Programme Environment and Trade 5 (1994), for other guidelines on the classification on hazardous waste, which could be useful for all three case study countries.

<sup>51</sup> Act 50, 2003; See also, Section 1 of the Environmental Conservation Amendment Bill (As introduced in the National Assembly as a Section 76 Bill; Bill published in Government Gazette No. 25289 of 1 August 2003 and passed as Act 50, 2003; cited here.) This Bill further substitutes Section 20 of the Environmental Conservation Act of 1989, regarding the transfer of the administration of waste sites from DWAF to DEAT. For further information, see also, Paragraph 1 of this Amendment Bill on the main objective of the Bill.

<sup>52</sup> The same approach is adopted by the White Paper and National Waste Management Strategy, both of which adhere to the "integrated pollution and waste management" principles, as discussed in Chapters 5.5.4 and 5.6.2 respectively.

<sup>53</sup> Department of Water Affairs and Forestry, First Edition, (1998), Supra 25, at 3 and 4.

<sup>54</sup> Department of Water Affairs and Forestry (1998), Second Edition, Supra 50, Section 9.4, at 9-5 and Table 6.1, at 6-6.



- <sup>55</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 9.1, at 9-2.
- <sup>56</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 9.4, at 9-5.
- <sup>57</sup> See Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 9.2, at 9-2, for further details.
- <sup>58</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid.
- <sup>59</sup> Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 9.2.2, at 9-3.
- <sup>60</sup> See Department of Water Affairs and Forestry (1998), Second Edition, Ibid, Section 9.3, at 9-4, for further details.
- <sup>61</sup> Discussion with Official at APD/DEAT, April 2002, Pretoria; See Rebovich (1992), Supra 1, 131-132, for discussions on other treatment options.
- <sup>62</sup> See response of MEST to question 1, in Annex 3(A) of Research Project under Ghana.
- <sup>63</sup> See answers of these offices in Annex 3(A) of Research Project under Ghana.
- <sup>64</sup> See recommendations under South Africa in Chapter 5.2.2 (a) (viii) above.
- <sup>65</sup> Housman et al (1995), Supra 8, Bullet 4 ; On harmonization, see also, Chapter 1.1.4.
- <sup>66</sup> See answers to Question 5 of Research Project, in Annex 3 (A) under Ghana.
- <sup>67</sup> See UNEP Document UNEP/CHW.6/20 and Corr. 1, on Biomedical and Healthcare Wastes, December 2002; UNEP Document UNEP/CHW.6/22 relating to Basel Technical Guidelines on the Environmentally Sound Management of Waste Lead Acid Batteries, December 2002; and UNEP Document UNEP/CHW.6/CRP.20, pertaining to Guidelines on Mobile Phone Initiative, December 2002. See also, Chapter 3.4.7 for UNCTAD Guidelines and Chapter 3.4.5 for further guidelines involving other agencies.
- <sup>68</sup> Discussions with official at the MEST, Accra, May 2003.
- <sup>69</sup> Article premier, Loi No. 96-766 du 3 Octobre 1996 portant Code de l'Environnement. (The Environmental Code is enshrined in Law No. 96-766 of 3<sup>rd</sup> October 1996).
- <sup>70</sup> La Loi 75-633 du 15 Juillet 1975 (that is, Law No. 75-633 of 15<sup>th</sup> July 1975 of the Court of Justice).
- <sup>71</sup> See answers to Question 5 (a) and (b), Findings of Research Project under Annex 3(C), La Côte d'Ivoire.
- <sup>72</sup> Ibid.
- <sup>73</sup> See Grover-Kerkvliet (1995), in UNEP (2000), Supra, 7, at 30. (See also, <http://www.unep.org/Geo2000/english/0037.htm>).
- <sup>74</sup> See Goyer (1996), in UNEP (2000), Ibid. (See also <http://www.unep.org/Geo2000/english/0037.htm>).
- <sup>75</sup> See EEA 1998, UNEP (2000), Ibid. See Colborn et al (1996), at 30-31, for further references. (See also <http://www.unep.org/Geo2000/english/0037.htm>).
- See also, UNEP "lead-free" gasoline and petrol initiatives, discussed in Chapters 2 and 3.
- <sup>76</sup> Department of Water Affairs and Forestry, First Edition, (1998), Supra 53.
- <sup>77</sup> Ibid.
- <sup>78</sup> UNEP (2000), Supra 75, at 29; See findings to Question 2 under (A), (B) and (C) of Research Project and also, Chapter 6 on scientific evidence, under Policy Recommendations; Hilz (1992) Supra 32, 54-61.
- <sup>79</sup> Lipman, Z "Transboundary Movement of Hazardous Waste: Environmental Justice Issues for Developing Countries", in Glazewski, J and Bradfield, G Environmental Justice and the Legal Process Juta & Co. Ltd (1999), 269; Marbury (1995), Supra 4, 253; Lipman, Z "Transboundary Movement of Hazardous Waste: Environmental Justice Issues for Developing Countries", Acta Juridica, 1999, Juta & Co Ltd (1999) (Published under the auspices of the Faculty of Law, University of Cape Town; Editorial Board: Bradfield, G; Hutchison, DB; Jooste, R; Leeman, I; Maluwa, T; van Zyl Smit, D; Visser, DP).
- <sup>80</sup> <http://gurukul.ucc.american.edu/ted/nigeria.htm>, 5; See also, Schissel, H, "The Deadly Trade: Toxic Waste Dumping in Africa", AR Vol. 33 No. 5 (1988), 48.
- <sup>81</sup> See <http://gurukul.ucc.american.edu/ted/nigeria.htm>, at 2.
- <sup>82</sup> <http://gurukul.ucc.american.edu/ted/nigeria.htm>, Ibid; See also, <http://gurukul.ucc.american.edu/ted/BENIN.htm>, 1-3.
- <sup>83</sup> <http://gurukul.ucc.american.edu/ted/nigeria.htm>, Ibid, at 5.
- <sup>84</sup> See for example, fn. 87 infra.
- <sup>85</sup> Coetzee, H, "Toxic Terror: Dumping Hazardous Waste in the Third World" New Ground Volume 16 Winter (1994), 43.

<sup>86</sup> Lipman in Glazewski and Bradfield (1999), *Supra* 79, 270; See also, Rutinwa, B, "Liability and Compensation for Injurious Consequences of the Transboundary Movement of Hazardous Waste", *RECIEL*, Focus on: Africa, Volume 6, Issue 1, 1997, 7-13, at 8. As at 1988, toxic waste disposal in Europe was about US\$1000 per ton; in the US, it was US\$ 350 for less toxic waste and US\$ 2500 for the more hazardous waste.

<sup>87</sup> The cheaper option of dumping hazardous waste from the first world into the third on the one hand, and the necessity for developing nations to earn foreign exchange to resolve their crushing debt as well as other financial problems on the other, could perhaps be highlighted by the following cases:

(a) Between August 1987 and May 1988, a Nigerian businessman accepted payments in installments of \$120:00 (US) per month from an Italian company to import 8,000 drums of waste comprising PCBs, ethyl, acetate formaldehyde, and methyl melamine into his backyard in Nigeria. These substances were sent in five shiploads amounting to almost 4,000 tons. They were dumped in the Nigerian port of Koko in Bendel State at this time. Shortly thereafter, these substances begun to seep into the atmosphere, and the local rice crop was destroyed, with resultant complaints from neighbours and governmental orders that the substances be shipped back to Italy. Individuals were arrested and diplomatic incidents occurred between the governments of the two countries concerned. It is noteworthy that the proper destruction of this substance would have cost \$4 million (US). See Wynne, B, "The Toxic Waste Trade: International Regulatory Issues and Options", *TWQ*, Vol. 11, No. 3, July 1989, 120-146, at 124; see also <http://gurukul.ucc.american.edu/ted/nigeria.htm>, 7; Schissel (1988), *Supra* 80, at 49; Glazewski, JI "Regulating Transboundary Movement of Hazardous Waste: International Developments and Implications for South Africa", 1993 26(2) *CILSA*, at 236; Murphy (1994) *Supra* 10, at 25.

Though \$120 (US) is meagre in first world terms, in a third world country such as Nigeria, this amount of money being paid every month is quite a profitable enterprise. It is noteworthy that this country has complained that it has suffered detrimental environmental consequences from illegal trade in toxic substances, which are often deceptively designated as raw materials for industry Naldi (1995), *Supra* 5, at 218, no.12; See also, statement of HE Babangida, then President of the Republic of Nigeria, to the OAU Summit of Heads of State, where he denounces the dumping of toxic waste from the first world into the third world, Addis Ababa, May 1988, produced in Peter, CM "The Right to a Clean and Satisfactory Environment: A Note on the Export of Toxic Waste to Africa" (1990) 6(2) *Lesotho LJ* 23-51, at 38.

(b) In Papua New Guinea, the government of the province of Oro negotiated a deal with a firm in California, USA firm to construct a \$38 million detoxification plant to process 600,000 metric tons of toxic waste on a monthly basis. Had this deal been successfully implemented, it would have generated an income which would have been approximately six times that of the annual provincial budget. However, owing to public opinion, this contract was a fiasco (Papua New Guinea, Peter (1990).

(c) See proposed contract between the government of Guinea-Bissau and European firms to import 15 million tons of pharmaceutical and industrial waste into the former's town of Farim in 1988, for \$600 million dollars, four times its Gross National Product (GNP) and twice the foreign debt of Guinea-Bissau. Fortunately, this site is close to the fishing and agricultural project of the Belgian NGO, Entente Européenne pour l'Environnement. It is interesting to note that the waste would have been dumped on the territory of this country over a period of five to ten years. The cumulative effect of this waste on the populace must be borne in mind. Thankfully, owing to public debate and exposure by the Entente Européenne pour l'Environnement, such a contract was never enforced, Peter (1990), at 32; Schissel (1988), at 48.

(d) The agreement between Benin and SESCO, a Bristol firm based in Gilbrator, or an apparently associated company, Hamilton Resources of Gilbrator, was for the former to accept between 1 and 5 million tonnes of toxic waste for US \$2.50 per ton plus 50 US cents per ton. This amount would have been geared towards other developmental projects in Benin. In addition to an income generation of approximately 4 billion CFA Francs, this project was also estimated to create jobs for as much as 200 people. The dumping site was to be located near Abomey, approximately 60 miles north of the capital, Cotonou. Once again, public opposition made the whole contract abortive, Peter (1990), 33-34; Schissel (1988), 48-49; Wynne (1989), at 127.

(e) A proposed agreement between the government of Equatorial Guinea and the British Company, Amvatrex, entailed depositing about 5 million tonnes of hazardous waste within a ten year period on a 200-hectare piece of land on the island of Annobon, which is composed of porous rock. Owing to the nature of this rock, the

waste could very well have seeped out from the land, destroying the ecology of the Atlantic Ocean, including some of Africa's wealthiest fishing populace. This contract was to accrue as much as \$1.6 (US) million for this country, but was never enforced, Peter (1990), at 34.

(f) However, the case of the third world country of Namibia offers a significant departure from the third world norms discussed above. For in 1988, when the Namibian government, under the South West African People's Organization (SWAPO), was offered \$ 2 billion (US) by a group of international investors, led by a Swiss company, to import 3 million tonnes of hazardous substances into its territory every year, the government however rejected this offer. The government is reported to be determined not to accept any offers, ideas or plans, whatsoever, now or in the future, that will have detrimental impacts on the Namibian people and nation, no matter how financially attractive or otherwise. Prior to this, a similar offer was made by the same first world party to the Angolan government. This contract was also but ineffective owing to public opposition, Peter (1990), at 40.

See other cases involving Guinea, discussed in Peter (1990), at 38 and Schissel (1988), at 48; the Central African Republic, discussed in Peter (1990), at 36. See also, Press Release News Stories, "A Toxic Waste" Vessel Abandoned in Gambian Waters, GPA, Others Intensify Probe", The Independent, Exports", Toxic Trade News, Banjul, The Gambia, 8 September 2000 (Also available at [http://www.ban.org/ban\\_news/as.html](http://www.ban.org/ban_news/as.html)), for the case of the Gambia; Kashweka, D (PANA Correspondent, Environment & Development Bulletin) "Namibia: Toxic Waste Import Fears in Africa", Windhoek, Namibia, 17 May 1999 (Available at [http://www.ban.org/ban\\_news/namibia.html](http://www.ban.org/ban_news/namibia.html)); Kitt, J "Waste Exports to the Developing World: A Global Response" (1995) 7 Georgetown IELR, 485; Lewis, DL and Chepesiuk, R "The International Trade in Toxic Waste: A Selected Bibliography of Sources", Dacus Library, Winthrop University, Rock Hill, South Carolina, USA (Available at <http://drseuss.lib.uidaho.edu:70/docs/egj02/lewis01.html>, last accessed on 6/3/99 5:32 p.m); Congressman Tom Allen Press Release, "Representative to Introduce Bill to Stop Used Mercury from Being Dumped in Third World Countries", Portland, Maine, USA, 25 January 2001 (Also available at [http://www.ban.org/ban\\_news/representative.html](http://www.ban.org/ban_news/representative.html)); "Danish Support to Toxic Waste Treatment in Southern Africa, Greenpeace and Local Groups Fear Increased Illegal Waste Trade" (from DEVELOPMENT TODAY: Nordic Outlook on Development Assistance, Business and the Environment, October 26, 1998), 26 October 1998; Atteh, S "Political Economy of Environmental Degradation: The Dumping of Toxic Waste in Africa", International Studies 30(3), July 1993:277; Arthur, C "Computer Cast-Offs Poisoning the Third World", Toxic Trade News, The Independent, London, England, 27 February 2002 (Also available at [http://www.ban.org/ban\\_news/computer\\_cast.html](http://www.ban.org/ban_news/computer_cast.html)); Coalition Press Release, "Groups Vow to Block Export of New York City Garbage to Caribbean -Demand Real Solution", Toxic Trade News, New York, USA, San Juan, Puerto Rico, Port-Au-Prince, Haiti, 1 July 2002 (Also available at [http://www.ban.org/ban\\_news/groups\\_vow.html](http://www.ban.org/ban_news/groups_vow.html)) and Skillings, J "Talking High-Tech Trash" Toxic Trade News 29 May 2002 (available at [http://www.ban.org/ban\\_news/talking\\_high.html](http://www.ban.org/ban_news/talking_high.html)) and Gupta, R "America's Unwanted Heading for India?", New Delhi, India, 2 January 2001 (Also available at [http://www.ban.org/ban\\_news/americas.html](http://www.ban.org/ban_news/americas.html)) and Louka, E Overcoming National Barriers to International Waste Trade: A New Perspective on the Transnational Movements of Hazardous and Radioactive Wastes Dordrecht: Graham & Trotman: Martinus Nijhoff (1994), Chapter 4; Galli, CD "Hazardous Exports to the Third World: The Need to Abolish the Double Standard", Columbia JEL No. 12 (1987), No. 1:71-90; Alterio, JM (The Journal News), "Billion PCs Add Up to Just So Much Garbage", Toxic Trade News, 7 July 2002 (Available at [http://www.ban.org/ban\\_news/billion\\_pcs.html](http://www.ban.org/ban_news/billion_pcs.html)); Green, K (Union Tribune) "Technology's Toxic Trash", Toxic Trade News, California, 7 July 2002 ("Electronic Waste from Old Computers, TVs Creates Heaping Mess"), Toxic Trade News, California, 7 July 2002 (Also available at [http://www.ban.org/ban\\_news/technology%27s\\_toxic.html](http://www.ban.org/ban_news/technology%27s_toxic.html)); "Greenpeace Report Says Asian Countries Being Used as Dumping Ground for Waste", 13 International Environmental Report (BNA) 113 (1994), for other examples involving developing countries' imports in this regard.

<sup>88</sup> Glazewski (1993), Ibid, 235.

<sup>89</sup> See Chapters 5.4.1 to 5.4.7 for further details and examples.

<sup>90</sup> Though officials in these offices did not indicate the exact amounts earned, they did in fact confirm that these activities have yielded a great deal of financial and monetary benefits during discussions in 2002.

<sup>91</sup> For further information, see Chapters 5.4.11 and 5.4.14.

<sup>92</sup> <http://www.sir.ci>; See also, Chapter 2.6.1(c) on this point.

- <sup>93</sup> Marbury (1995) Supra 4, 284-285.
- <sup>94</sup> Marbury (1995), Ibid, 279-281.
- <sup>98</sup> Marbury, (1995), Ibid, 284-285.
- <sup>99</sup> See for example, Cock, J et al "People, Politics and the Environment in South Africa", Going Green, 1991 Oxford University Press, Cape Town, 162-175, at 172; Madhufasi, R (Deputy Minister) "Government Attention Turns to Medical Waste, Bojanala, Volume 1/No 1 January/February 2002, paragraph 2, at 14.
- <sup>100</sup> Cock (1991), Ibid, 173.
- <sup>101</sup> Cock (1991), Ibid, 162.
- <sup>102</sup> DEAT, Annual Report 1999/2000, 37.
- <sup>103</sup> DEAT, 1999/2000, Ibid.
- <sup>104</sup> BBC News, 2<sup>nd</sup> January 2004, 0400 hours GMT.
- <sup>105</sup> See also, Fuggle and Rabie (1992), Supra 24, 517, where they note the lack of adequate and comprehensive laws to tackle hazardous waste issues prior to 1990 in South Africa. The efforts after this year, such as the CSIR study on hazardous wastes in South Africa and its draft report on this issue, such as the proposal for legislative options for hazardous waste regulation in South Africa, are discussed here.
- <sup>106</sup> See Supra 51.
- <sup>107</sup> Subsection 2(1) on waste & sewerage disposal.
- <sup>108</sup> Act 54 of 1956, promulgated in Gazette GN R991 GG 9225 of 18 May 1984, amended by GN 1930 GG 9400 of 31 August 1984 GN 1864 GG 17567 of 15 November 1996, produced in Henderson PGW Environmental Laws of South Africa Vol. 1 Juta & Co (1997) Vol. I, at 2-213 to 2-219.
- <sup>109</sup> Part 5, Section 20. See also, Part 4, Section 19.
- <sup>110</sup> Act 209 of 1993; See Part IV(i) (aa) on duties of local government including ensuring that all persons residing within their areas of jurisdiction have access to waste-related services such as refuse removal, sewerage purification, roads and storm water drainage.
- <sup>111</sup> See Part IV on Dust Control; See also Article 28.
- <sup>112</sup> Act 63 of 1977; Articles 20(1)(a) and (b). These powers and authorities were assigned to the Provinces in a Government Gazette Notice No. R152, 1994.
- <sup>113</sup> Act 36 of 1947; See Articles 3 and 17.
- <sup>114</sup> Act 15 of 1973; Section 3A.
- <sup>115</sup> Act 85 of 1993; Article 8(b); See also, Articles 8(c) and 8(d).
- <sup>116</sup> See the National Road Traffic Act 1996 (Act 93 of 1996), especially, Part VIII on Dangerous Goods. On 1 August 2001, the new legislation in this Act affecting the road transportation of classified dangerous goods and substances was enforced. Basically, the legislation covers the transportation of dangerous goods in both bulk and packaged form, which exceed the limited permissible quantity for goods/substances. It classifies 700 litres as dangerous, thereby enforcing stricter environmental standards. Previous legislation simply required compliance for substances transported in bulk road tankers in excess of 500 litres.
- <sup>117</sup> The information herein was obtained from discussions with these Departments during the research and study tour for this thesis in Pretoria, April 2002. Here, it was indicated that this problem of lack of co-ordination amongst relevant governmental departments is also evident in the exercise geared at quantifying the magnitude of potential health and environmental problems, caused by mining and disposing of asbestos. This exercise is being undertaken by so many Government departments, Minerals and Energy, Welfare, Health and Labour, as well as the DEAT. In the absence of such co-ordination, nothing can be substantially accomplished. The DEAT is however leading a process to co-ordinate Government efforts in finding effective solutions.
- <sup>118</sup> Discussions with official, DEAT, Pretoria, April 2002; See also Madhufasi in Bojanala (2002), Supra 99, Paragraph 5.
- <sup>119</sup> Simcox, DW "The Future of Europe Lies in Waste: The Importance of the Proposed Directive on Civil Liability for Damage Caused by Waste to the European Community and its Environmental Policy", 1995, Vanderbilt JTL, Vol. 28, No. 3, 543-612, at 546-551. See also, Chapter 4.5.4 on Commission v Belgium.
- <sup>120</sup> See Chapter 6(B) under discussions on Inter-Agency Permit Scheme; See also, Findings of Research Project to Question 8(e)(i), Annex 3.
- <sup>121</sup> See Basel Convention Regional Centre, Volume 2: Country Profiles and Networks (Carl Bro Management), Ghana, September 2001.
- <sup>122</sup> Basel Convention Regional Centre (2001), Ibid.
- <sup>123</sup> Basel Convention Regional Centre (2001), Ibid.
- <sup>124</sup> Basel Convention Regional Centre (2001), Ibid.

<sup>125</sup> Article 10, EPA Act, 1994, Act 490.

<sup>126</sup> See for example, Findings of Research Project under (c), where there answers from just the Environmental Affairs Ministry, as opposed to the other two case study countries which have more feedback from other Ministries, Agencies and NGOs. Such offices could therefore be established in this country then.

<sup>127</sup> Article 35.7; On the Inter-Agency Permit Scheme, see Supra 120. At this point, it may also be added that even if such co-operation does not really exist to its fullest extent in reality, the fact that it has been provided for on paper, is a step forward and should now be implemented.

<sup>128</sup> Discussion with officials, Supra 62.

<sup>129</sup> See Findings of Research Project, Question 8(e)(ii).

<sup>130</sup> See Chapter 5.4.12 for full details of this case.

<sup>131</sup> See Analysis of Findings, Question 3(c), Annex 3(c).

<sup>132</sup> Marbury (1995), Supra 98, 258-259.

<sup>133</sup> See Chapter 3.4.1 (f) for details on the workings of these Basel Convention Regional Centres and similar recommendations being made there. Within the broader context of the trade and environment debate and how it affects toxic waste imports and exports, see also, discussions on Tunis and Cape Town regional workshops of WTO Committee on Trade in October 2002 and May 2003 respectively, Chapter 4.3.9.

<sup>134</sup> The ILO for example, has been very forthcoming in this regard, by establishing a Postgraduate Diploma/Certificate Course in Conciliation and Arbitration for SADC students and civil servants. This programme is based at the National University of Lesotho, Roma, Lesotho and the University of Namibia, Windhoek, Namibia. It is taught by lecturers from these two institutions in collaboration with lecturers from the University of Cape Town, South Africa. It was established to empower the respective Departments of Labour Law in the SADC region. Occasional problems include the fact that in one year, the National University of Lesotho rejected an application for admission on the grounds that the applicant did not hold a University degree. On the other hand, the University of Cape Town felt that this notwithstanding, the years of experience which the applicant possessed could compensate for this shortcoming. Hence, the reason for the recommendation being made that it would be better to have only these two institutions to administer this programme for the WTO and UNEP. Discussions with officials, University of Cape Town, 26<sup>th</sup> June 2002.

<sup>135</sup> For more information, see Annex 3, Findings to Question 8(d) of Research Project, for three countries; and discussions on liability in Chapter 6(B).

<sup>136</sup> See response of the DEAT to Question 8(d), under Findings of Research Project.

<sup>137</sup> See discussions on extended producer responsibility in Chapter 6, Article 10, and response of the UCT/ChemEng to Question 8(d), Findings of Research Project.

<sup>138</sup> "Occidental to Pay \$129 Million in Love Canal Settlement," For Immediate Release, Thursday, December 21, 1995, Also available at [http://www.usdoj.gov/opa/pr/Pre\\_96/December95/638.txt.html](http://www.usdoj.gov/opa/pr/Pre_96/December95/638.txt.html).

<sup>139</sup> The polluter pays principle has become a very important emergent principle in international environmental law. This is analysed in Chapter 3.2.4, when discussing important principles, which have emerged in international environmental law. See also, Chapter 6, under this principle.

<sup>140</sup> Article 2.

<sup>141</sup> Telephonic discussion with official at the Ministère de l'Environnement, Abidjan, June 2003.

<sup>142</sup> See Chapter 5.4.13.

<sup>143</sup> UNEP (2000) Supra 78; See also <http://www.unep.org/Geo2000>.

<sup>144</sup> Discussions with official from Ministry of Agriculture, April 2002.

<sup>145</sup> See Response of EPA to Question 8e(ii), Findings of Research Project.

<sup>146</sup> See Chapter 3.2.1 on sustainable development, which stresses this need.

<sup>147</sup> See Response of the EJNF to Question 5(a), Findings of Research Project. On examples of initiatives to educate the public on recycling of waste, see also, "Waste-By-Rail, The Solution to South Africa's Waste Dilemma", Earthyear The Essential Environmental Guide Edition 19, June 1999-December 1999, Chapter 5, for discussions of South Africa's Spoomet Recycling Education Centre in Knysna.

<sup>148</sup> See Chapters 5.4.8 and 5.4.9.

<sup>149</sup> Cock et al (1991), Supra 101, at 171.

<sup>150</sup> See for example, activities of BCRC, Pretoria, Basel Convention Regional Centre, Volume 2: Country Profiles and Networks (Carl Bro Management), South Africa, September 2001.

<sup>151</sup> See for instance, Centre Régional de la Convention de Bâle pour l'Afrique Francophone, Dakar, Senegal, Rapport de la Réunion, Deuxième Réunion du Comité Directeur du Centre Régional de la Convention de Bâle pour l'Afrique Francophone, 05 Février 2002, Dakar, Senegal; and Centre Régional de la Convention de Bâle pour l'Afrique Francophone, Dakar, Senegal, Rapport Final, Atelier Régional de Sensibilisation sur les

mouvements transfrontaliers de déchets dangereux et de leur élimination en Afrique de l'Ouest, 06-08 Février 2002, Dakar, Sénégal. On factors responsible for these trends as discussed in Chapter 5.3, see Hilz (1992), Supra 78, Chapter 3.

<sup>152</sup> Glazewski (1993), Supra 88, at 234-235.

<sup>153</sup> Discussions of 16<sup>th</sup> April 2002 with official, DEAT, Pretoria, Supra 128; See also, Glazewski (1993), Ibid, at 235; Cock et al (1991), Supra 149 at 169-170; Louw, R. "Foreign Companies Flayed for Toxic Waste", SAR, May 16 1997, Vol. 15 No. 20, at 3-4; Glazewski (2000), Supra 23, at 761-762; Coalition Press Release, "US Company on Verge of Impunity for Shipping Toxic Waste to South Africa", Washington DC, USA, 21 January 1999 (Also available at [http://www.ban.org/ban\\_news/us\\_company.html](http://www.ban.org/ban_news/us_company.html)).

<sup>154</sup> Glazewski (2000), Ibid.

<sup>155</sup> Glazewski, (2000), Ibid, at 761.

<sup>156</sup> Louw (1997) at 3.

<sup>157</sup> Glazewski (2000), Supra 155, at 762.

<sup>158</sup> Louw (1997), Supra 156.

<sup>159</sup> Discussions of 16<sup>th</sup> April 2002, Supra 153.

<sup>160</sup> Glazewski (2000), Supra 157, at 762. See also, Commission of Inquiry into Thor Chemicals fn. 14.

<sup>161</sup> Discussions of 16<sup>th</sup> April 2002, Supra 159.

<sup>162</sup> Discussions of 16<sup>th</sup> April 2002, Ibid.

<sup>163</sup> Louw (1997) Supra 158.

<sup>164</sup> Headed by Professor Dennis Davis. Discussions of 16<sup>th</sup> April 2002, Supra 162.

<sup>165</sup> Discussions of 16<sup>th</sup> April 2002, Ibid; See also, Glazewski (2000), Supra 160, at 762; Louw (1997), Supra 163.

<sup>166</sup> Louw (1997), Ibid. Here, he notes that Professor Davis also criticised the former National Party government for permitting companies to transport toxic waste into South Africa in a "fairly uncontrolled fashion".

<sup>167</sup> Louw (1997), Ibid; see also Glazewski (2000), Supra 165.

<sup>168</sup> Louw (1997), Ibid.

<sup>169</sup> Discussions of 16<sup>th</sup> April 2002, Supra 165.

<sup>170</sup> Cock et al (1991), Supra 149, at 169, where further details concerning discrepancies in this case are also discussed.

<sup>171</sup> Discussions of 16<sup>th</sup> April 2002, Supra 169. For a better understanding of incineration, encapsulation and landfill, see Chapter 5.2.2(c) on discussion pertaining to the treatment of wastes under waste classification, and Question 5(b) of Research Findings on waste treatment options; measures are yet to be implemented in practice, but at the moment, the waste is being exported. According to these discussions, another outcome of the exercise of the Davis Commission is the rehabilitation strategy, which seeks to compensate those who may suffer from any mercuric emissions in the future. It must be emphasised at this point that given the seriousness of this case, the establishment of a law on toxic waste with penalties is very necessary. Similar events in Europe and the US led to urgent action, manifested in the setting up of strict laws in this sense. See for example, Kiss, A and Shelton, D International Environmental Law Transnational Publishers, Inc. (1991), at 312 on Seveso and at 220-223 on Sandoz, and their respective Directives, discussed in Chapter 1.1 of this thesis; See also, fns. 17 and 18 of Chapter 1 of this thesis.

<sup>172</sup> Glazewski (1993), Supra 87.

<sup>173</sup> Cock et al (1991), Supra 170, at 171. It must be particularly emphasised that the fact that these substances were not known, evokes the precautionary principle, See Chapter 3.2.2.

<sup>174</sup> Cock et al (1991), Ibid; Discussions of 16<sup>th</sup> April 2002, Supra 181.

<sup>175</sup> Earthlife Africa, "Earthlife Africa Stops Waste Ship" (Shipment of Cupric Arsenite from Finland to Durban, available at <http://www.gem.co.za/ELA/cupric.html>, accessed on 6/3/99 5:12 p.m.).

<sup>176</sup> Telephonic Interview of 29<sup>th</sup> April 2002 with Mr. Muna Lakani, Earthlife Africa, Johannesburg.

<sup>177</sup> Xinhua (via NewsEdge Corporation) "South Africa Defends Importing Toxic Waste for Research", Johannesburg, South Africa, 6 September 2000 (Also available at [http://www.ban.org/ban\\_news/south\\_africa.html](http://www.ban.org/ban_news/south_africa.html)); see also, Coalition Press Release "Environmentalists Call on South Africa to Reject Imports of Hazardous Waste", Seattle, Amsterdam, Pretoria, 14 September 2000 (Available at [http://www.ban.org/ban\\_news/enviros\\_call.html](http://www.ban.org/ban_news/enviros_call.html)).

<sup>178</sup> Global Anti-Incinerator Alliance and Ground Work "Global Alliance Urges Mbeki to Junk Sasolberg Burner", Toxic Trade News, Manila/Pietermaritzburg, 9 May 2002 ("Over a Hundred Groups from 45 Countries Petition the Government of South Africa to Go for Safer Alternatives"; Also available at

[http://www.ban.org/ban\\_news/global\\_alliance.html](http://www.ban.org/ban_news/global_alliance.html)); For effects of POPs and toxic waste on the environment, see Chapter 6 under scientific evidence and Chapter 5.2.4; See also, Edie Weekly Summaries, "Green Groups Hail Successful Outcome of Global Treaty on Pops", Johannesburg, South Africa, 15 December 2000 (Also available at [http://www.ban.org/ban\\_news/green\\_groups\\_hail.html](http://www.ban.org/ban_news/green_groups_hail.html)).

<sup>179</sup> Discussion with official FROM Fry's Metals Company, July 2002.

<sup>180</sup> See relevant point concerning Fry's Metals in Chapter 2.7.2(a).

<sup>181</sup> See for instance, Chapter 3.3 on how illicit trade in toxic waste can cause instances of pollution.

<sup>182</sup> Ibid.

<sup>183</sup> Discussion with official from Battery Terminal, October 2002.

<sup>184</sup> Discussion with official from Meltzer Company, October 2002; For further case studies within the South African context, see Glazewski, J "An Overview of International Law and South African Law Relevant to Plutonium Shipments" (Paper presented at a Workshop on Plutonium Shipments around South Africa, held under the auspices of the Royal Society of South Africa on 17 May, 1994).

<sup>185</sup> For further details of this case, see Cape Times, "Salvage Attempt on Stricken Oil Carrier", 28<sup>th</sup> and 30<sup>th</sup> April 2004.

<sup>186</sup> See for example, Articles 3(a) and 7(b) of model treaty and Section 2 of model law, Chapter 6.

<sup>187</sup> Information from EPA, Accra, November 2001; See Supra 87 for details of the Koko incident.

<sup>188</sup> Information from EPA, Accra, November 2001, Ibid.

<sup>189</sup> Discussion with UNDP official, November 2002.

<sup>190</sup> Discussion with official from Tema Oil Refinery, November 2002.

<sup>191</sup> See response of FAO to Question 3(b), Findings to Research Project.

<sup>192</sup> See information provided by World Bank, under analysis of Findings to Research Project, Annex 3, Question 3.

<sup>193</sup> Discussion with officials from Lube Oil Company, December 2002.

<sup>194</sup> Discussion with official from La Société Ivoirienne de Raffinage, Abidjan, June 2003; See also, <http://www.sir.ci>.

<sup>197</sup> See Chapter 2.6.1(a).

<sup>198</sup> See Thomas, RS (1996), cited in Asamani, Y The World Trade Organization and Developing Countries, with Specific Reference to South Africa (Unpublished LLM Dissertation, University of Cape Town, January 1998), Chapter 5.1.3.

<sup>199</sup> Glazewski (2000), Supra 160, 668.

<sup>200</sup> Glazewski (2000), Ibid.

<sup>201</sup> See Chapters 5.5.1 to 5.5.6.

<sup>202</sup> Glazewski (2000), Supra 200.

<sup>203</sup> Hereinafter, Draft Waste Management Policy (1994); promulgated in Gazette Number 1064 GG.15987 of 30 September 1994; see also Henderson (1997), Supra 108, at 1-105 to 1-124.

<sup>204</sup> See Glazewski (2000), Supra 202, at 669. Here he provides for other deficiencies of this Policy, for instance, it was not well drafted.

<sup>205</sup> Article 4.7.

<sup>206</sup> Article 4.7.

<sup>207</sup> Ibid.

<sup>208</sup> See Chapter 2.7.

<sup>209</sup> Article 4.7, paragraph 4.4; Henderson (1997), Supra 203, 1-110.

<sup>210</sup> Article 11. The converse could actually create a situation where such trade is conducted in an illegal manner.

<sup>211</sup> Article 4.7, paragraph 4.4; Henderson (1997), Supra 209, 1-110.

<sup>212</sup> See Article 4.8 on Consultation; Henderson (1997), Ibid, at 1-110 to 1-111.

<sup>213</sup> Discussions of 16<sup>th</sup> April 2002, Supra 111.

<sup>214</sup> See Article 4.9, on Information and notification; Henderson (1997), Supra 209, 1-111.

<sup>215</sup> Henderson (1997), Ibid.

<sup>216</sup> See Article 4.10 on Research; Henderson (1997), Ibid.

<sup>217</sup> See for instance, involvement of DANCED in the National Waste Management Strategy (1999), Chapter 5.5.4.

<sup>218</sup> See Article 4.11 on Resources; Henderson (1997), Supra 215, 1-111.

- <sup>219</sup> Henderson (1997), *Ibid*, 1-112; The guidelines for waste disposal have indeed been established by the Department of Water Affairs and Forestry, see Department of Water Affairs and Forestry (1998), Second Edition, *Supra* 45, at 1-1 to R-2. Such a trend shows the seriousness which the government of South Africa attaches to environmental and waste management principles.
- <sup>220</sup> This would serve as a source of easy reference.
- <sup>221</sup> See Article 4.1, 1-108 on Regulatory Structure.
- <sup>222</sup> Cited in Chapter 5.3.2(b).
- <sup>223</sup> *Ibid*.
- <sup>224</sup> *Ibid*.
- <sup>225</sup> *Ibid*. See also, Article 4.2 of this Act; Henderson (1997), *Supra* 219, at 1-109.
- <sup>226</sup> This view is shared by an official at the APD/DEAT, April 2002, Pretoria; See fn. 57 *supra*.
- <sup>227</sup> Discussions of April 2002, *Ibid*. He further confirmed that this would defeat the purpose of sustainable development. See his response, that is, APD/DEAT to Question 5(a) and dissenting opinion of EJNF, Research Findings, under (B), South Africa.
- <sup>228</sup> Article 4.5; Henderson (1997), *Supra* 225, 1-110.
- <sup>229</sup> See Article 3.3 on International acceptability.
- <sup>230</sup> See Article 4.4 on integration; Henderson (1997), *Supra* 228.
- <sup>231</sup> See Article 4.3 on classification; Henderson (1997), *Ibid*.
- <sup>232</sup> See discussions in Chapter 5.2.2(a) (ii).
- <sup>233</sup> Article 2.10; Henderson (1997), *Supra* 231, 1-107.
- <sup>234</sup> Article 1; Henderson (1997), *Ibid*, 1-106.
- <sup>235</sup> Henderson (1997), *Ibid*, 1-107 to 1-108.
- <sup>236</sup> See Article 3.3 of Basel Convention.
- <sup>237</sup> Glazewski (2000), *Supra* 204, Chapter 18.1.3.4. At fn. 14 of this chapter, he notes that despite the provision of these regulations, by 1999, that is five years after South Africa's ratification to the Basel Convention, there was no relevant specific law in place. It may be added that as at 2004, this law is yet to be enforced. Hence, one of the main aims of this thesis, see Chapter 1.1.4.
- <sup>238</sup> DEAT, White Paper on Integrated Pollution and Waste Management for South Africa (2000) (A Policy on Pollution Prevention, Waste Minimisation, Impact Management and Remediation), Chapter 3.4.1, at 19. See also, Chapter 3.4.2 of White Paper (2000), Hereinafter White Paper), at 19, on fragmented legislation and ineffective enforcement. See also, Chapter 5.3.2 of this dissertation in this regard.
- <sup>239</sup> See White Paper (2000), *Ibid*, Chapter 3.4.3.
- <sup>240</sup> White Paper (2000), *Ibid*, Chapter 3.4.4.
- <sup>241</sup> White Paper (2000), *Ibid*, Chapter 3.4.5.
- <sup>242</sup> White Paper (2000), *Ibid*, at 9.
- <sup>243</sup> White Paper (2000), *Ibid*, Chapter 1.1, under Definition of Integrated Waste Management.
- <sup>244</sup> White Paper (2000), *Ibid*, Chapter 1.4, at 10, under Purpose of Policy. This is reiterated in DEAT, DWAF and DANCED (1999), fn. 246 *infra*, Chapter 2.2, at 6.
- <sup>245</sup> White Paper (2000), *Ibid*, Chapter 1.5, at 10-11, under Policy Principles.
- <sup>246</sup> DEAT, DWAF and DANCED, National Waste Management Strategies, Actions and Plans South Africa, Strategy Formulation Phase (Version C) 7 June 1999, Executive Summary, at i. This strategy/ project comprised four phases, the Inception Phase, the Situation/Baseline Analysis Phase, The Strategy Formulation Phase and the Action Plans Phase, at 11-12.
- <sup>247</sup> See *Supra* 120.
- <sup>248</sup> Glazewski (2000), *Supra* 237, 656-657.
- <sup>249</sup> DEAT, DWAF and DANCED (1999), *Supra* 246, Chapter 2.2, at 6.
- <sup>250</sup> DEAT, DWAF and DANCED (1999), *Ibid*.
- <sup>251</sup> DEAT, DWAF and DANCED (1999), *Ibid*, at 9.
- <sup>252</sup> DEAT, DWAF and DANCED (1999), *Ibid*.
- <sup>253</sup> DEAT, DWAF and DANCED (1999), *Ibid*.
- <sup>254</sup> DEAT, DWAF and DANCED (1999), *Ibid*, at 7.
- <sup>255</sup> See Chapters 5.7 and 6(B), under necessity for punitive measures.
- <sup>256</sup> DEAT, DWAF and DANCED (1999), *Supra* 254, Chapter 4.6.
- <sup>257</sup> One main emphasis in this Chapter of the thesis is that even though Côte d'Ivoire has a specific law on toxic waste, from the research project, it could be inferred that of the three case study countries, South Africa is the



most advanced, in terms of carrying out work on toxic waste. The other two could therefore borrow and bend many lessons from this country, for more efficiency in these matters.

<sup>258</sup> DEAT, DWAF and DANCED (1999), *Supra* 256, Chapter 3.5, at 10.

<sup>259</sup> See for example, Section 2(c)(i) of model law, Chapter 6(b).

<sup>260</sup> While (a) of the requirements is discussed at this point, (b) and (c) have already been analysed in Chapter 5.5.2 (c).

<sup>261</sup> DWAF, *Minimum Requirements for Water Monitoring at Waste Management Facilities* (Second Edition, 1998), Section 1, at 1-1.

<sup>262</sup> *Ibid.*

<sup>263</sup> Section 2.1, at 2-1.

<sup>264</sup> *Ibid.*

<sup>265</sup> Section 4(i).

<sup>266</sup> Section 4(vii).

<sup>267</sup> Section 4(x). See also, Jessup, *DH Waste Management Guide, Laws, Issues and Solutions* The Bureau of National Affairs, Inc., Washington DC (1992), Chapter 9, for examples and guidelines in recycling solid waste.

<sup>268</sup> It is noteworthy that in doing this, the Act does not lay down any specific environmental standards to be adhered to, as indicated by Glazewski (2000), *Supra* 248, at 658

<sup>269</sup> See relevant point under Chapter 3.3.

<sup>270</sup> See Gazette No. 15428 dated 21 January 1994, cited in Glazewski (2000), *Ibid.*, and discussed by him in Chapter 17.6.3.5.

<sup>271</sup> While fulfilling these objectives, see for example, see South Africa's National Waste Management Strategy (1999), in Chapter 5.5.4 of this thesis.

<sup>272</sup> See Glazewski (2000), *Ibid.* and his discussions in Chapter 17.6.3.5 on the way in which the Act indirectly deals with hazardous waste.

<sup>273</sup> Emphasis mine.

<sup>274</sup> See for instance, Articles 4(2)(b) and 4(2)(d) of the Basel Convention and Article 11 of the Bamako Convention.

<sup>275</sup> Article 2; see Henderson (1997), *Supra* 235, 1-83.

<sup>276</sup> Article 3; see Henderson (1997), *Ibid.* See also, Gazette GN R1196 GG 15832 of 8 July 1994.

<sup>277</sup> See Schedule A of Regulations, Questions 1-5, 13 and other questions; produced in Henderson (1997), *Ibid.*, 1-84 and 1-91.

<sup>278</sup> See generally, Directions in Terms of Section 20(5)(b) of the ECA (Act 73) of 1989-The Control and Management of General Communal and General Small Waste Disposal Sites, as promulgated in GN 91 GG 23053, 1 February 2002; tabulated in Henderson (1997), *Ibid.*, 1-82 to 1-82.23, with Annexures A to E.

<sup>279</sup> See Glazewski (2000), *Supra* 274, at 657. The White Paper and National Waste Management Strategy are discussed in Chapters 5.5.3 and 5.5.6 respectively. These Acts reflect the same principles in this regard.

<sup>280</sup> Section 2(4)(p). See also, Glazewski (2000), *Ibid.*, at 20-21 and generally, Chapter 3.2.4 on the polluter pays principle.

<sup>281</sup> Section 2(4) (a) (ii); See Chapter 3.2.3 on the preventive principle.

<sup>282</sup> Section 2(4) (a) (vii); See Chapter 3.2.2 on the precautionary principle; On fns. 271-273 of this thesis; see also, Glazewski (2000), *Supra* 280, at 657.

<sup>283</sup> Article 29.

<sup>284</sup> Basel Convention Regional Centre, Volume 2: Country Profiles and Networks, Ghana, September 2001, at 2.

<sup>285</sup> PNDCL 217. See Basel Convention Regional Centre (2001), *Ibid.*

<sup>286</sup> Basel Convention Regional Centre (2001), *Ibid.*

<sup>287</sup> See Basel Convention Regional Centre (2001), *Ibid.*, for complete list of other fragmented pieces of legislation.

<sup>288</sup> Article 3.

<sup>289</sup> See Chapter 5.4.13 and Research Findings under Ghana, Response of FAO to Question 3(c).

<sup>290</sup> See Chapters 1.1.3 and 3.1.2 (c), under these cases, as far as spillover of toxic waste from one territory into a neighbouring territory is concerned.

<sup>291</sup> This refers to the acts specified in Article 1.

<sup>292</sup> Article 2.

<sup>293</sup> See Chapter 2.7.1(a) for example.

<sup>294</sup> Article 4.

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<sup>295</sup> Article 3.

<sup>296</sup> See Supra 151.

<sup>297</sup> Article 3.

<sup>298</sup> Article 4.

<sup>299</sup> Article 5.

<sup>300</sup> Article 6.

<sup>301</sup> See Ssenkaaba, S "NEMA to Ban Importation of Second-Hand Refrigerators" Uganda, 1 May 2002.

<sup>302</sup> This requirements have been borrowed and is being bent our purposes from California, which would be the state in the USA to impose such stipulations, with effect from early 2004; see Bustillo, M "Paying to Junk TVs, Monitors", Toxic Trade News, Sacramento, California, 26 June 2002 (Available at [http://www.ban.org/ban\\_news/paying\\_to.html](http://www.ban.org/ban_news/paying_to.html)).

<sup>303</sup> See for example, Green, K (Union Tribune) "Technology's Toxic Trash", Toxic Trade News, California, 7 July 2002 ("Electronic Waste from Old Computers, TVs Creates Heaping Mess"), Toxic Trade News, California, 7 July 2002 (Also available at [http://www.ban.org/ban\\_news/technology%27s\\_toxic.html](http://www.ban.org/ban_news/technology%27s_toxic.html)).

<sup>304</sup> Supra 69.

<sup>305</sup> Article 35.1.

<sup>306</sup> Article 26.

<sup>307</sup> Article 35.5.

<sup>308</sup> Article 33.

<sup>309</sup> Ibid.

<sup>310</sup> Article 35.6.

<sup>311</sup> Article 50.

<sup>312</sup> Hilz (1992), Supra 151, at 181, see also, fns. 4 and 5 there.

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## **CHAPTER 6: RECOMMENDATIONS FOR MODEL TREATY AND LAW**

### **Introductory Remarks**

*"...Embracing a sustainable development paradigm in political decision-making and economic planning is a long term process requiring fundamental changes in attitudes and perceptions at all levels of society. Ultimately, the determinant factor is the political will to implement the law as well as the effectiveness of monitoring systems and enforcing mechanisms in applying it. Otherwise, the laws will hardly make an impact and runs the risk of existing only on paper..."<sup>1</sup>*

Free trade in hazardous waste as discussed in this thesis, has many attendant benefits, if conducted with due regard to sound principles of environmental management. On the other hand, if conducted without due consideration to these principles, such trade could create environmental perils. The latter situation then creates a conflict between economic liberalism in hazardous waste and the need for environmental protection from the results of unfettered trade in hazardous waste. Hence, the implementation of strict legal regimes to protect the environment from the possibly disastrous effects of hazardous waste trade and other human processes while inhibiting free trade principles to a minimum, is increasingly important, given a rise in such activities. However, such legislative environmentalism should also not create unnecessary obstacles to free trade in hazardous waste. In contemporary times when sustainable development has become central in both trade and environmental policy at global, regional and municipal levels, reconciling these two somewhat conflicting objectives becomes relatively easier.

At the dawn of the twenty-first century, African countries including South Africa, Ghana and Côte d'Ivoire have demonstrated their deep commitment to regional integration through the NEPAD and the AU for instance. The development of regional arrangements such as SADC, COMESA and ECOWAS over the past few decades also demonstrates this commitment. Within this context, free trade in hazardous waste and environmental protection regarding these forms of waste include the key areas wherein these countries will collaboratively work. To this end, it is timely to establish appropriate legal regimes which will implement relevant objectives in these spheres, with adequate and prompt measures to enforce liability and compliance regarding such regimes. Advisably, such an exercise could be effected at regional, sub-regional and municipal levels.

Based on the aforementioned, the following model treaty is hereby proposed for the African Regional Mechanisms. Similarly, this is followed by the recommended model law for the three case study countries of this thesis in their regulation of hazardous waste trade. This model law is not exclusive to the three case study countries, but could, it is suggested, be adapted to meet the needs and aspirations of other countries in Africa. For purposes of clarification, some of the provisions of this model treaty and law are followed by an explanatory memorandum.

#### **6 (A) Model Treaty for African Regional Mechanisms**

It is suggested that this model treaty be considered as an annex to the respective treaties establishing the NEPAD and AU, as well as those of the ECOWAS, SADC and COMESA sub-regional mechanisms. This model treaty may be further applicable to the other African mechanisms. The reasoning behind this recommendation for the model treaty to be applied to both African regional and sub-regional mechanisms is to avoid a situation where there is a conflict of obligations of the three case study countries and other African countries at the sub-regional level on the one hand and the regional level on the other. A synchronisation is therefore attained at both levels.

The contents page of a model treaty is now set out as follows:

#### **Preamble**

#### **Article 1. Environmental Obligations of the Parties**

#### **Article 2. Scope and Principles of Co-operation**

#### **Article 3. Prevention of Illegal International Trade in Toxic and Hazardous Wastes**

#### **Article 4. Guidance of Environmental Law Principles**

#### **Article 5. Inclusion of Transparency Principles**

#### **Article 6. Publication of Work on Trade and Environment**

#### **Article 7. Response Action and Liability of Parties Engaged in Toxic Waste Imports and Exports**

#### **Article 8. Dispute Settlement**

#### **Article 9. Criminal Liability**

## **Article 10. Benchmarks and Indicators for Monitoring Compliance**

### ***Preamble:***

*Fully committed to attaining the objective of sustainable development through conducting trade relations with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production and trade in goods and services, while seeking to protect and preserve the environment,<sup>2</sup>*

*Reaffirming the doctrine of mutual recognition in the Common Market which ensures free and fair trade in specified forms of hazardous substances, and in other goods and services, amongst Member States;*

*Aware of the need for the implementation of sound principles of environmental management in toxic waste trade and the fact the absence of such implementation could result in environmental degradation, excessive depletion of resources and serious ecological damage;*

*Noting the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between parties where the same conditions prevail, or a disguised restriction<sup>3</sup> on intra-African trade, member states shall ensure that a balance exists when implementing trade and environmental measures;*

*Reaffirming the principle of a human right to a decent environment which entitles every individual to a fundamental human right to live in a clean, decent and healthy environment, free from the dumping of toxic waste, amongst other things,*

### **Article 1. Specific Environmental Stipulations**

*In this regard, it is incumbent on Member States to ensure that nothing in this Agreement be construed to prevent the adoption or enforcement by any contracting party of measures enacted in furtherance of:*

- (a) environmental protection;*

- (b) *the protection of human, animal, marine, soil, atmospheric or plant life or health;*
- (c) *the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;*
- (d) *the prevention of harm to the forms of life in (b), especially if this results from handling toxic waste.*

## **Article 2. Scope and Principles of Co-operation**

- (a) *Member States hereby undertake to co-operatively promote trade in only specified forms of toxic waste, while co-ordinating special environmental regional conservation strategies for the protection and preservation of pollution and other environmental problems which could result from such trading activity.*
- (b) *To this end, in their regulation of toxic waste trade activity, Member States shall within the Common Market, ensure that while promoting the doctrine of mutual trust in free trade, the legal principles of environmental management, as per Articles 4 of this model treaty and 6 of the municipal model-law below, are simultaneously adhered to.*
- (c) *Where a jurisdictional dispute arises between two or more Member States in relation to the provisions of Articles 2(a) and 2(b) above, or any measure in effect pursuant to it arises between two or more Member States, the concerned Member States shall co-operatively consult together with a view to arriving at a mutually acceptable solution.*
- (d) *If a misunderstanding occurs between/among two or more Member States on the application of any provision of this treaty, Member States shall collaboratively refer this matter to the respective Trade and Environment Division of the relevant African sub-regional mechanism or that of the NEPAD, for interpretation.*

## **Article 3. Prevention of Illegal International Trade in Toxic and Hazardous Wastes**

- (a) *The Member States undertake to co-operate and adopt common positions against the illegal purchasing, selling, importing, transiting, depositing, stocking and exporting of toxic and undesirable wastes within the Common Market from either a Member State or third country. In this regard, Member States hereby adopt a common position to only permit trade in specific categories of toxic waste, subject to Annex 4 of their municipal laws on toxic waste trade. Member states however recognise each other's sovereign right to*

*either trade in banned forms of toxic waste or ban trading in certain categories of toxic waste which are permitted within the Common Market, under very exceptional circumstances. For purposes of transparency, a Member State shall be required under such marginal circumstances, to provide reasonable justification in written form, to other Members within the Common Market, why such action is necessary.*

- (b) The Member States further undertake to co-operate in sharing technological know-how on clean technologies and low-waste production systems for the energy and productive sectors.*
- (c) While respecting the national sovereignty of member states, these states undertake to accede to multilateral environmental conventions which are specifically designed to deal with hazardous waste trade. To this end, Member states hereby agree to ratify/accede to the Basel Convention, Basel Ban Amendment, and the Rotterdam, Stockholm and Bamako Conventions and adopt relevant laws at municipal level to reinforce the objectives of these various conventions.*
- (d) Member states agree to include principles of environmental management and conservation, as highlighted in Article 4 of this model treaty, in trade, transport, agricultural, mining and tourism activities within the Common Market, given the likelihood of each of these processes to generate toxic waste.<sup>5</sup>*

#### **Article 4. Guidance of Environmental Law Principles**

*(a) Sustainable Development: In conformity with the principle of sustainable development as per preambular paragraph 1 of this model treaty, the importation and exportation of toxic waste within the Common Market shall be pursued with the long-term vision of preserving the ecological base, to the benefit and use of future generations. Consequently, such trade must be conducted with the incorporation of sound environmental principles in every sectoral activity, so that financial gains from such trade are geared towards environmental goals and not used in the clean-up of resultant negative environmental dilemmas from such trading activity. This inevitably ties in with the principle of inter-generational equity.*

*(b) Prior Informed Consent:*

*(i) Any party wishing to import or export any forms of toxic waste shall obtain prior consent in documented form, duly authorised and signed by the Inter-Agency Permit Committee/Hazardous Pesticides Committee/Inter-ministerial Committee at the municipal level of Member States, before proceeding with such a transaction. This Committee shall subsequently report to officials in the Secretariat of this regional/sub-regional mechanism, as the case may be, on its workings in this respect, as per Section 3(f) of the model law of this thesis, of countries at municipal level.*



(ii) Importers and exporters of toxic waste will be required to use ecolabelling and environmental labelling schemes detailing the constituent elements of any given toxic waste which they wish to trade in. These schemes must gain the approval of the each country's respective Inter-Agency Permit Committee.

(c) Preventive Principle: Member states shall ensure that parties within their respective territorial jurisdictions, who are engaged in waste generating activities implement all necessary environmental principles to ensure clean and green production methods, including in their importation and exportation of toxic waste, and the packaging of such waste.

(d) Precautionary Principle: Where there is scientific uncertainty as to the toxicity of certain hazardous wastes other than those forms of toxic waste which are elucidated in this law, the Inter-Agency Permit Committee/Inter-ministerial Committee in respective jurisdictions of Member states may in collaboration with officials from the Basel Secretariat and WHO, assess the toxicity of such a substance, with due regard to Basel and WHO Guidelines. Upon further certainty, the Committee may deem it prudent to refuse the importation or exportation of such substances altogether. The need to apply these preventive and precautionary principles of foresight vis-à-vis incorporating lessons such as the non-discrimination, necessity/proportionality tests is also important. It must be amply demonstrated that these measures are directly and not remotely related to such environmental protection and the preservation of human health, thereby striking a harmonious balance between free trade and environmental protection, as far as hazardous waste trade regulation is concerned.

(e) Polluter Pays Principle: Though this treaty foresees the preventive and precautionary approaches to toxic waste trade, given the great probability of various forms of sectoral activity generating waste even in its minutest quantity, it is incumbent on every waste generator to clean such forms of waste. It is hereby emphasised that such responsibility in no way rests upon the government or the residents of the neighbourhood in which such waste is generated, but upon the waste generator(s). In this vein, Member states shall ensure that all companies and centres engaged in toxic waste recycling, importation and exportation submit to each country's Inter-Agency Committee, a comprehensive list indicating the sort of environmental principles which they adopt. However, given the fact that any form of human or industrial activity is likely to result in waste generation, such waste should be minimal and should also be cleaned up by the responsible generating company anyway, under the polluter pays principle. Member states shall share the details of this information with other Member States within the Common Market, as per Section 3(f) of the model law of this thesis, of countries at municipal level.

(f) Human Right to a Decent Environment: In conformity with the principle of a human right to a decent environment, as enunciated in preambular paragraph 5 of this model treaty, it is incumbent upon Member States to ensure that the rights of their nationals and other Member states herein shall include the easy availability of information to the public, from the Inter-Agency Committee in each country, which shall also

publicise such information on the media and internet. It is hereby stressed that Member states shall also ensure that every individual be also responsible for keeping the environment clean by refraining from dumping or littering waste or any other substance. Contravention of this stipulation is tantamount to an offence, punishable by a fine, as per Article 7 of this model treaty.

(g) Locus Standi and Class Action: Where the right of an individual or group of people or decent environment is threatened, or the person/persons has/have reason to believe that this right is being jeopardised or will be jeopardised from current or prospective imports of toxic waste, Member States shall ensure that such a person/such persons may be entitled to legal action and effective judicial redress, as per Article 7 of this treaty. If this individual believes or group of persons also believe that a piece of land in which (s)he/they has/have proprietary interests may be adversely affected by such activities, legal redress may be readily available. It is incumbent upon such person(s) to prove that they have interests in the land on which such toxic waste trading activity may occur.

#### **Article 5. Inclusion of Transparency Principles**

Whereas environmental law principles highlighted in Article 4 of this treaty are included into the administration of toxic waste trade issues, in furtherance of the doctrine of mutual recognition as per preambular paragraph 2 of this model treaty, for the avoidance of protectionism within the Common Market, the following transparency principles are also hereby included in this treaty:

(a) Rule of Reason, Necessity/ Proportionality Analysis: While requiring all imports of toxic waste to be elucidated in the official language of this country (English, French, Afrikaans or Portuguese as the case may be), it must be stressed that this legal requirement is directly relevant for the protection of public and environmental health.

#### **Explanatory Memorandum**

In the absence of such clear stipulations, such substances may be consumed by the public, mishandled and then, cause all manner of negative effects to human and ecological health.

(b) Relevance to the Conservation of Human, Terrestrial and Ecological Health: These environmental principles shall be imposed with a view to protecting the health of the population and the environment. Hence, the refusal of the Inter-Agency Permit Committee in each Member State to grant the importation or exportation of toxic waste substances must be done with a view to necessarily protecting such forms of life. The reasons for such refusal must be clearly provided by the Committee and made available to officials in working on Trade and Environment issues, within various African regional and sub-regional mechanisms, as per Article 3(f) of the model law of this thesis, of countries at municipal level.

**(c) Disguised Restriction/Discrimination:**

(i) The substances such as PCBs which are outlawed in toto and can never be traded in, for reasons of their excessive toxicity, have been attached in Annex 4 to the municipal law of this thesis. Such prohibition must be publicly announced and submitted in documented form to the Basel, Bamako, WTO and NEPAD secretariats, as well as the African regional and sub-regional mechanisms. In this regard, officials working on trade and environment issues shall ensure that such information has been received from Member States.

(ii) For the avoidance of discrimination, a tax on any toxic waste, petroleum or other substance containing toxic waste in any Member State shall be the same for locally produced and foreign goods, where these goods are the same.

**(d) Foreign-Domestic Jurisdiction:** While exhorting the respective Inter-Agency mechanism in each Member state to require ecolabelling and environmental labelling schemes from exporters of toxic waste from other countries into this country as per Article 6(b)(ii), Member States shall ensure that this Inter-Agency Committee shall not interfere with the laws and processing standards of other countries on toxic waste. The requirement for these schemes is simply to protect the ecological and human health of this country. Scientific evaluations are therefore required.

**Article 6. Publication of Work on Trade and Environment**

For the furtherance of public participation in toxic waste trade regulation, the workings of this organisation on trade and environmental matters, as well as toxic waste, shall be published in written form, on the internet, media and other appropriate communication methods.

**Article 7. Response Action and Liability of Parties Engaged in Toxic Waste Imports and Exports**

(a) Any party trading in toxic waste shall be strictly liable to the country/countries to which the toxic waste is exported including the state(s) in transit, if the toxic waste trading activities of this party results in environmental damage, loss of human life, impairment of human health and damage of property of the importing state(s) or state(s) in transit.

(b) In the event of 7(a) above, such liability shall include reparational costs in integrum, that is monetary compensation for clean up of damage caused with a view to restoring the situation which would have most probably existed in the event that the illegal act had not been committed..

(c) In the cases of Articles 7(a), 7(b) and 7(c) above, the extent of such harm and the reasonable costs to be reimbursed by the guilty party shall be determined by the NEPAD Dispute Settlement Body.

## **Article 8. Dispute Settlement**

*(a) If a dispute arises between/ among member states regarding the interpretation or application of the provisions of this treaty, or regarding other relevant matters, the parties to the dispute shall expeditiously consult with each other and the NEPAD Dispute Settlement Body (which should be established through a separate protocol to be added to the NEPAD treaty), with a view to having the dispute resolved by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their choice.*

*(b) If the parties to the dispute as per 8(a)(i) above have not agreed upon a means for resolving it within 12 months of the request for consultation, at the request of any of the parties to the dispute, the dispute shall be referred for settlement to the NEPAD Dispute Settlement Body.*

*(c) If disputes occur between one or more member states on the one hand and one or more non-member states on the other, this dispute may be referred to the proposed Dispute Resolution Mechanism of the UNEP/Basel Legal Regime or the International Court of Justice.*

## **Explanatory Memorandum**

It is envisaged that the measures in Article 7 will aid in ensuring liability and compliance, regarding this model treaty and municipal law regulating toxic waste trade in African countries, as proposed in Chapter 6.

## **9. Criminal Liability**

*Whether toxic waste trading activity does or does not inflict harm on human health, the environment or property of the importing state(s) or of state(s) in transit, the party responsible for such trading activity may in addition to the damages and compensation as per Article 7 above, be made to pay penal fines to the state to which it exported such waste as well as the state of transit through which the guilty party sent the toxic waste.*

## **Article 10. Benchmarks and Indicators for Monitoring Compliance**

*With a further view to ensuring liability and compliance, officials working on trade and environmental matters and the specific issue of toxic waste trade regulation shall establish benchmarks and indicators for monitoring the compliance of member states in these matters. Reports of these workings shall be shared with the respective Inter-Agency Committees of*

*African countries. There shall be regular exchange of information with these Committees, collaboration with the Basel and WTO Secretariats, as well as Greenpeace International in this field. Officials from this mechanism shall participate in Basel and WTO sessions which deal with this issue.*

## **6 (B) Model Law for Three Case Study Countries**

This is to be read in conjunction with the attached Annex 4, which spells out:

- (a) the specific classes of waste which are banned *in toto* from importation and exportation; and
- (b) those in which trade is permissible, subject to authorisation from the appropriate governmental member offices comprising the Inter-Agency Permit Committee, discussed in Section 3 of this law.

It is noteworthy that since all three countries have membership to Basel, they intend to regulate and not ban toxic waste trade altogether. However, as Ghana and Côte d'Ivoire have membership to the Bamako Convention and are in the process of ratifying the Basel Convention Ban Amendment, it is expected that they ban more forms of toxic waste than South Africa. So that under national sovereignty, each of the three case study countries could expand or limit the lists in Annex 4, and must not be placed under the same umbrella, at this stage when the proposal of this thesis for a harmonisation of the definition of toxic waste is yet to be realised under NEPAD.

The contents page of a model law is now set out as follows:

### **Preamble**

### **Section 1. Definition of Hazardous Waste**

- (a) Terminology
- (b) Sources
- (c) Classification
- (d) Scientific Evidence
- (e) Financially Beneficial Aspects of Certain Categories of Toxic Waste
- (f) Guidelines for Treatment of Different Forms of Waste

**Section 2. Prohibition of Trade in Banned Forms of Toxic Waste**

**Section 3. Inter-Agency Permit Committee**

**Section 4. Requirement for Handlers of Toxic Waste to Obtain Appropriate License**

**Section 5. Requirement for Companies to Submit Reports to Environmental Affairs Ministry**

**Section 6. Guidance of Environmental Law Principles**

**Section 7. Incorporation of Transparency Principles**

**Section 8. Punitive Enforcement**

**Section 9. Criminal Liability**

**Section 10. Liability of Offenders**

**Section 11. Port of Entry of Toxic Waste**

**Complementary Matters**

**Section 12. Case-by-Case Basis Bilateral Agreements**

**Section 13. Requirement for Participants to WTO Institutes in Nairobi and Basel Convention Regional Centre in Pretoria, as well as all other meetings convened by these Agencies to Present Documented Reports to Local Ministries and Offices Involved in Toxic Waste Trade Regulation**

**Section 14. Traineeships, Internships and Consultancies**

**Section 15. Establishment of Recycling Centres**

**Section 16. Establishment of Monitoring Mechanisms**

**Preamble:**

*Cognisant of the principle of national sovereignty which entitles this country to adopt a free trade policy, including legitimising certain forms of toxic waste trade, since this yields considerable degrees of financial benefits for attaining positive economic and developmental objectives;*

*Mindful of the principle of national sovereignty which empowers this country to pursue its objectives of environmental protection, through inter-alia, banning the importation and exportation of certain categories of these toxic wastes;*

*Reaffirming its commitment to economic liberalism as manifest inter-alia, in its ratification of the WTO, the main international trading mechanism for promoting free and fair trade in goods and services;*

*In conformity with contemporary and fundamental emerging trends in the WTO such as the need to conduct free trade as a means to arriving at the ideal/end of sustainable development, as evident for example, in the WTO's newly established Committee on Trade and Environment which seeks to ensure that such objectives are attained;*

*In furtherance of the accession of this country to the Basel Convention which seeks to regulate and not ban trade in toxic waste between developed countries and developing countries;*

*Deeply concerned about the inherent toxicological and ecotoxicological characteristics of hazardous wastes, their resultant likelihood and imminent capacity to inflict unprecedented degrees of destruction to human, terrestrial and ecological life alike;*

*Desirous to protect the life of its populace and these other forms of life from such potentially disastrous perils of toxic waste mismanagement;*

*Pursuant to Article 24 of South Africa's constitution and NEMA in the case of South Africa and in the case of Côte d'Ivoire, Articles 19 of its constitution as well as 33 of Loi. No. 96-766, which entitles every individual to a fundamental human right to live in a clean, decent and healthy environment, free from the dumping of toxic waste, amongst other things,*

*Determined to conform to the principle of sic utere tuo ut alienum non laedas embodying the concept of good neighbourliness which forbids one country from utilising its territory in a manner which would adversely impact the territory of its neighbours;*

*The Government of this country, under the stipulations of the Law on Toxic Waste Trade (2004) hereinafter, deems it expedient to legalise trade in certain categories of toxic waste while simultaneously protecting the health of its citizens and the ecological life of its environment.*

## **Section 1. Definition of Hazardous Waste**

### **(a) Terminology**

*Any substance, be it in gaseous, liquid or solid form, or any combination thereof, which is a residual by-product of any process of activity and could be conveniently disposed of or put to further use when effectively reprocessed. Consequently, each of the following forms of waste may be disposed of or recycled for commercial purposes, provided this is done with due regard to the incorporation of environmental concerns:*

### **(b) Sources**

- (a) Medical;*
- (b) Household;*
- (c) Pesticides;*
- (d) Chemicals;*
- (e) Industrial waste and*
- (f) Agricultural waste.*

### **(c) Classification**

*Wastes may be General or Hazardous.*

#### **(i) General**

*General wastes may be domestic, commercial waste, certain industrial waste and builder's rubble. It may be disposed of on any landfill that is permitted in terms of the DWAF and DEAT Guidelines of South Africa/Ghana/Côte d'Ivoire as the case may be.*



## (ii) Hazardous

Hazardous waste, is any inorganic or organic element or compound that, because of its toxicological, physical, chemical or persistency properties, may exercise detrimental, acute or chronic impacts on human health and the environment. It can be generated from various commercial, industrial, agricultural and domestic activities and may take the form of liquid, sludge or solid. These characteristics contribute not only to degree of hazard, but are also of great importance in the ultimate choice of safe and environmentally acceptable methods of disposal.<sup>6</sup>

In the light of this definition, it ought to be stressed that hazardous waste comprises certain elements which directly or indirectly pose a threat to human health or the environment by introducing one or more of the following risks:

- (i) Explosion or fire;
- (ii) Infectious, pathogens, parasites or their vectors;
- (iii) Chemical instability, reactions or corrosion;
- (iv) Acute or chronic toxicity;
- (v) Cancer, mutations or birth defects;
- (vi) Accumulation in biological food chains, persistence in the environment or multiple effects to the extent that it requires special attention and cannot be released into the environment or be added to sewage or be stored in a situation which is either open to air or from which aqueous leachate could emanate.<sup>7</sup>

## Explanatory Memorandum

The inherent dangers of hazardous wastes such as POPs, fat soluble toxic chemicals that do not easily degrade, persist for many years in the environment, concentrate up the food chain, accumulate in animal and human tissues and often end up thousands of kilometres from where they are used or released. In light of such situations, hazardous waste could be deemed to be waste that has the potential, even in low concentrations, to have a significant adverse effect on public health and the environment, because of its inherent toxicological, chemical and physical characteristics. It excludes all wastes.<sup>8</sup>

### (a) Scientific Evidence

As hazardous waste is generally acknowledged to be capable of detrimentally impacting human health, through inflicting a variety of ailments such as neurotoxic disorders, leukemia, cardiovascular (heart and circulatory system) abnormalities, dermatitis and endometriosis, the following cases involving

scientific evidence will also be cited, to demonstrate how specific forms of toxic waste can have chronic effects on humans, terrestrial and animal health.

(i) Asbestos : This can cause cancer to human beings. For instance, owing to the fact that they appear in very thin stripes (not in circles), these substances are hardly visible. Even as by-products of industrial activity, they are just so tiny in size that they cannot be perceived by the human eye. However, the slightest contact with them makes them inhalable. They thereupon come into contact with one's bronchules, an internal organ within the thorax. Upon such contact, the asbestos gets stuck to the lung, similar to the manner in which a needle gets stuck to an item. After many years, these substances become carcinogenous, and cause cancer in humans and animals as well.

(ii) Lead and Mercury: When inhaled over a period of time, they affect the nerves and cause physical paralysis, nervous breakdown, psychological as well as nervous disorders. They further cause intellectual impairment in children, and affect fertility as well as reproduction in nursing mothers. Lead causes permanent brain damage amongst human beings. When children are exposed to low levels of lead, they are likely to have learning disabilities and behavioural problems throughout their lives. In 1987, it was revealed that a child's mental performance could be affected by lead absorbed while in the womb.<sup>9</sup>

(iii) Plutonium: Upon being inhaled; also cause similar symptoms in the life of humans as well as animals and marine life.

(iv) Polychlorinated Biphenyls: These cause a variety of malignant ailments such as severe chemical burns, nausea, vomiting of blood, partial paralysis and in some cases, coma, cholera and premature births in pregnant mothers. They also contaminate soils and marine life.

(iv) Acidic Wastes: Usually by-products of industrial activities, these lead to acid rain which in turn kill soil organisms and affect the forests. The soil eventually loses its fertility.

(v) Organochlorine: This is a kind of pesticide. When utilised in the cotton industry above certain levels, it can cause detrimental effects. Other forms of pesticides contain residues which affect the environment.

(vi) Carbon Monoxide: Normally found in the exhaust fumes of cars, these can deplete the ozone layer.

(vii) Cyanide: Instant effects of cyanide on humans as well as its prolonged effects can cause death. Waste containing cyanide can kill all flora and fauna in the water.

(viii) Azo Dye: Used in the textile industry, breakdown substances in this product cause cancer.

(ix) Toxins and Carcinogens: These cause birth defects, miscarriages and in some cases, stress and other forms of emotional instability.<sup>10</sup>

(x) Dioxins : Scientifically proven to be more dangerous than anyone knew a decade ago. Of its many harmful effects on wildlife and humans, dioxins cause:

- Cancer in both forms of life;
- Wasting away syndrome, that is, progressive loss of weight leading to death in certain animal species;
- Atrophy of the thymus, a blood forming organ important in the immune system;
- Atrophy of the spleen, another important blood-forming organ in the immune system;
- Atrophy of male reproductive organs;
- Enlargement, deterioration and death of liver tissue;
- Hyperplasia, that is, excessive growth in the urinary tract and bile ducts;
- Birth defects and suppression of the immune system;
- Cancer in the laboratory animals, wildlife and humans.<sup>11</sup>

(b) Financially Beneficial Aspects of Certain Categories of Toxic Waste

Notwithstanding these characteristics of hazardous waste, this law recognises the financial benefits which could result from sustainable trade in toxic waste. In order to realise these benefits, the guidelines as discussed in Article 1(f), may be utilised for such trade. While any of the regulated toxic waste in Annex 4 may be traded in only with due consideration to these guidelines, under no circumstances may substances which are banned under Annex 4 be traded in. Any act to the contrary is tantamount to a crime under this law.

(c) Guidelines for Treatment of Various Forms of Waste

It is necessary to clearly distinguish between the various forms of waste disposal and treatment options which will be appropriately utilised for different categories of waste, depending on their different levels of toxicity, as per Annex 4 to this thesis.

- (i) Pursuant to the Guidelines of the Basel Convention on the Environmentally Sound Management of different categories of waste, each of these forms of waste shall be treated

according to respective guidelines obtained from the Basel Convention Secretariat, through the Environmental Affairs Department/Ministry, or the Inter-Agency Permit Committee.

(ii) Waste recycling projects shall incorporate these considerations into their activities and be evaluated by the relevant Ministries of Environment, Trade, Health, *inter-alia*. For any other form of waste not mentioned in this law, applications for relevant guidelines may be submitted to the WHO and Basel Secretariat, through the Inter-Agency Permit Committee.

“Hazardous waste” must therefore be realistically defined by giving due consideration to its possible generation of financial benefits, but also the manner in which such waste can adversely impact human health and the environment.

*Section 1 (d). Similar to South Africa, Ghana and Côte d'Ivoire adopt a similar approach to the abovementioned in its definition as they also have membership to Basel which seeks to regulate and not ban toxic waste trade. A harmonisation of the definition between the two countries is thereby achieved. However, in the case of Ghana and Côte d'Ivoire, it must be emphasised that this definition may eliminate substances which are considered highly contaminous by the Bamako Convention and the Basel Ban Amendment, but not by Basel, if it can be reasonably foreseen and established that such a substance is dangerous to human health and the environment.*

### **Section 2. Prohibition of Trade in Banned Forms of Toxic Waste**

*This Section prohibits all acts pertaining to the purchasing, selling, importing, transiting, depositing and stocking of toxic and undesirable wastes as well as banned noxious substances, subject to Annex 4, within the whole territory of the country. This law further forbids exporting these substances out of the territory of the country.*

### **Explanatory Memorandum**

In the cases of Ghana and Côte d'Ivoire however, under national sovereignty, the list of substances being referred to in Annex 4 may in the case of each respective country, be extended or limited; with sufficient proof that a particular substance could be harmful than otherwise anticipated.

### **Section 3. Inter-Agency Permit Committee**

*There shall be a Department of Waste Management which shall be established as the central agency and competent authority within the Department of Environmental Affairs and Tourism to deal with all matters relating to toxic waste regulation. This Department of Waste Management shall work collaboratively with the Departments of Water Affairs and Forestry, Trade, Health and Agriculture as well as at least, two environmental NGOs, on matters pertaining to toxic waste trade regulation, and shall together with these offices, constitute the Inter-Agency Permit Committee. To this end, the current Basel Committee shall be extended to include these NGOs, assume the role of this Inter-Agency Permit Committee and undertake the following tasks:*

*(a) Granting requests and ensuring prior informed consent to individuals, companies and other parties who wish to import or export toxic waste into and from the country. Consequently, any party who wishes to import or export toxic waste into and out of this country shall submit requests to this Committee in documented form. This requirement shall also be applicable to parties who wish to engage in exclusive bilateral treaties in toxic waste trade with parties in countries which are not members to the international conventions listed in Article 3(b). (See also, Article 12 below).*

*(b) The granting or refusal of such permission lies within the discretionary authority of the Committee. In cases of a refusal of such permission, the Committee shall amply prove the existence of a direct link between the effects of such toxic waste trade and the health of human beings, as well as the environment, thereby establishing scientific evidence and using international guidelines such as those of the UNEP and WHO. In exceptional instances, if the Committee is able to sufficiently prove the great likelihood of imminent harm from a toxic waste which has not been banned in the Basel, Bamako, Rotterdam and Stockholm Conventions, the Committee may ban such substances, thereby conforming to the precautionary principle, as provided for, in Article 6(d) of this law.*

*(c) It is incumbent upon this Committee to convene periodic meetings on a monthly basis to review any current or outstanding issues in its workings. It shall also conduct an inventory of hazardous waste generation and auditing for all classes of waste, at least, once in every six months, for discussions at its regular meetings. This would help facilitate the implementation of this law.*

*(d) The Committee shall monitor progress and compliance by all parties who handle toxic waste as far as the adherence to the requirements of this law is concerned. This, it shall accomplish by recruiting consultants to monitor toxic waste practices through their establishment of relevant benchmarks and indicators, and reporting back to the Committee. Reports of such evaluation shall be discussed at the periodic meetings discussed in Article 3(c) above.*

*(e) Pursuant to the requirement in Articles 5 and 15 of this law for companies and recycling centres respectively to submit progress reports to the Committee, the Committee shall forge partnerships with these enterprises, highlight the format required for the preparation of these reports, evaluate the reports and provide consequent feedback thereon, encourage the*

*provision of governmental incentives to these companies, make awards to companies which adhere to sound environmental practices and make recommendations for necessary improvements.*

*(f) The Committee shall also act as a national focal point for monitoring toxic waste trends in this country and shall in this regard, regularly collaborate with the Basel Secretariat in Geneva, WTO Committee on Trade and Environment, UN Commission on Sustainable Development, Greenpeace International, Secretariat of the Bamako Convention, French West African Sahelian Mechanism, relevant divisions of the NEPAD Secretariat, other African Regional and Sub-Regional Mechanisms, BCRCs worldwide, other Inter-Agency Schemes in other African countries which regulate toxic waste trade and other relevant international/regional organisations. Within this context, relevant issues to be discussed include the workings of these organisations on current practices and policy in toxic waste trade as this pertains to this country and other states worldwide, what lessons are worthy of emulation and the pitfalls which should be avoided. In this regard, the Committee shall be the main mechanism at municipal level to which all toxic waste offences shall be reported, for further communication to the Bamako and NEPAD Secretariats (if the dispute involves African countries) or the WTO and Basel Dispute Settlement Divisions, in order to seek legal redress (if the dispute involves countries outside Africa).*

*(g) With a view to increasing public awareness in toxic waste trade, safeguarding public interests and enhancing public participation in toxic waste trade regulation, it is incumbent upon the Committee to disseminate the information in Article 14 through the media and internet. This task shall also be performed in partnership with companies.*

*In the case of Ghana, before this Section, it shall be provided that:*

*Subject to Article 10 of Ghana's Environmental Protection Agency Act, 1994, Act 490 which shall inter-alia,*

- (a) monitor the use of hazardous chemicals by collecting information on the importation, exportation, manufacture, distribution, sale, use and disposal of such chemicals;*
- (b) advise the Board and the Executive Director on the regulation and management of hazardous chemicals;*

*Ghana's current Hazardous Pesticides Committee and Côte d'Ivoire's present Inter-Ministerial Committee shall perform exactly the same functions as South Africa's Inter-Agency Permit Scheme discussed above. Membership to the respective Committees of these two case study countries, which already includes officials from each country's Ministry of Health and Agriculture, may in each case also be extended to include an official from the Ministry of Trade and at least, two environmental NGOs which deal with toxic waste trade matters.*

#### **Section 4. Requirement for Handlers of Toxic Waste to Obtain Appropriate License**

*Anyone in possession of this substance should produce a prior obtained permit in documented form, from the Inter-Agency Permit Committee. Possession of hazardous substances without the necessary governmental approval in documented form, duly authorised and signed by officials from the relevant offices, may be tantamount to an offence, punishable by fine or imprisonment.*

#### **Explanatory Memorandum**

Hazardous substances have a highly toxicological nature and an imminent capacity to cause death in human beings, as well as ecological disasters.

#### **Section 5. Requirement for Companies to Submit Reports to Environmental Affairs Ministry**

*Companies shall submit reports of their activities, waste generation and treatment trends once every six months, to the Department of Waste Management in the Ministry above. Reports must indicate how clean and green these production and waste treatment programmes are. Furthermore, these reports must clearly indicate the quantities of waste which are generated by these companies and how they are treated. Where there are problems in adhering to stringent environmental standards, companies shall highlight these issues, and obtain relevant assistance from the government as well as the Committee in Article 3. A format detailing the information required shall be obtained from the Inter-Agency Permit Committee/Hazardous Pesticides Committee/Inter-Ministerial Committee. This stipulation shall not apply in cases where trade secrecy must be safeguarded in order to protect business interests. The respective Inter-Agency Scheme in each country shall make such exceptions.*

#### **Section 6. Guidance of Environmental Law Principles**

*(a) Sustainable Development: Pursuant to the principle of sustainable development, the importation and exportation of toxic waste shall be pursued with the long-term vision of preserving the ecological base, for the prospective utilisation by future generations. In this regard, such trade must be conducted with the incorporation of sound environmental principles in every sectoral activity, so that financial gains from such trade are geared towards environmental goals and not used in the clean-up of resultant negative environmental dilemmas from such trading activity. This inevitably ties in with the principle of inter-generational equity. Only in the case of South Africa do Sections 2(3) and 1(1)(xxxix) of its NEMA apply. In the cases of the two other case study countries, the provisions of Section 6(a) are simply stated without due consideration to previously stipulated principles of sustainable development.*

## Explanatory Memorandum

The necessity to simply provide for this principle in the case of these two other case study countries stems from the absence of any prior environmental law/policy in their respective jurisdictions which explicitly reiterates the principle of sustainable development.

### (b) Prior Informed Consent:

(i) *Any party wishing to import or export any forms of toxic waste shall obtain prior consent in documented form, duly authorised and signed by the Inter-Agency Permit Committee/Hazardous Pesticides Committee/Inter-Ministerial Committee before proceeding with such a transaction.*

(ii) *Importers and exporters of toxic waste will be required to use ecolabelling and environmental labelling schemes detailing the constituent elements of any given toxic waste which they wish to trade in. These schemes must gain the approval of the each country's respective Inter-Agency Permit Committee.*

(c) Preventive Principle: *Reaffirming Sections 2(4)(a)(ii) and 2(4)(a)(iv) of the South African NEMA, parties engaged in waste generating activities shall implement all necessary environmental principles to ensure clean and green production methods, including in their importation and exportation of toxic waste. In Ghana, this clause is simply stated, without due regard to a prior environmental policy which reiterates this principle, as there is none. In Côte d'Ivoire, this clause is applied, while reaffirming Article 26 of its Loi No. 96-766, 1996, which reiterates the preventive principle.*

(d) Precautionary Principle: *Noting Section 2(4)(a)(vii) of South Africa's NEMA in the case of South Africa and Article 35.1 of Loi No. 96-766 in the case of Côte d'Ivoire, in the event of scientific uncertainty as to the toxicity of certain hazardous wastes other than those forms of toxic waste which are elucidated in this law, the Inter-Agency Permit Committee/Inter-ministerial Committee may in collaboration with officials from the Basel Secretariat and the WHO, assess the toxicity of such a substance, using relevant Basel and WHO Guidelines. Upon further certainty, the Committee may deem it prudent to refuse the importation or exportation of such substances altogether. The need to apply these preventive and precautionary principles of foresight vis-à-vis incorporating lessons such as the non-discrimination, necessity/proportionality tests is also important. It must be amply demonstrated that these measures are directly and not remotely related to such environmental protection and the preservation of human health, thereby striking a harmonious balance between free trade and environmental protection, as far as hazardous waste trade regulation is concerned. This principle is applicable to Ghana, except that this article is stated without prior consideration to a prior environmental policy providing for the precautionary principle. The Committee in the case of Ghana is also the Hazardous Pesticides Committee.*

(e) Polluter Pays Principle: *Further noting Section 2(4)(p) of the South African NEMA in the case of this country and Article 35.5 of Ivorian Loi No. 96-766 in the case of Côte d'Ivoire, though this law foresees the preventive and precautionary approaches to toxic waste trade, given the great probability of various forms of sectoral activity generating*



waste even in its minutest quantity, it is incumbent on every waste generator to clean such forms of waste. It is hereby emphasised that such responsibility in no way rests upon the government or the residents of the neighbourhood in which such waste is generated, but upon the waste generator(s). In this vein, all companies and centres engaged in toxic waste recycling, importation and exportation, should be required to submit to each country's Inter-Agency Committee, a comprehensive list indicating the sort of environmental principles which they adopt. However, given the fact that any form of human or industrial activity is likely to result in waste generation, such waste should be minimal and should also be cleaned up by the responsible generating company anyway, under the polluter pays principle. In the case of Ghana, this requirement is not subject to any previous policy reinforcing polluter pays, as there is none. It is therefore simply stated.

(f) Human Right to a Decent Environment: In conformity with the principle of a human right to a decent environment as enunciated in Preambular Paragraph 8 of this law, these rights herein shall include the easy availability of information to the public, from the Inter-Agency Committee in each country, which shall also publicise such information on the media and internet, as required in Article 3(g) of this model law. It is hereby emphasised that every individual be also responsible for keeping the environment clean by refraining from dumping or littering waste or any other substance. Contravention of this stipulation is tantamount to an offence, punishable by a fine, as per Articles 8 and 6(e) of this model law.

(g) Locus Standi and Class Action: Pursuant to Article 24 of the 1996 South African constitution in the case of this country, where the right of an individual or group of people or decent environment is threatened, or the person/persons has/have reason to believe that this right is being jeopardised or will be jeopardised from current or prospective imports of toxic waste, such a person/such persons may be entitled to legal action and effective judicial redress. If this individual believes or group of persons also believe that a piece of land in which (s)he/they has/have proprietary interests may be adversely affected by such activities, legal redress may be readily available. It is incumbent upon such person(s) to prove that they have interests in the land on which such toxic waste trading activity may occur. In the cases of Ghana and Côte d'Ivoire, no prior environmental policy exists on this principle, and this Article is therefore to be simply stated.

(h) Public Trust Doctrine: With due regard to South Africa's Section 2(4)(o) of the NEMA, as in the case of South Africa, the government of this country deems it prudent to incorporate the aforementioned environmental soft-law principles into the administration of toxic waste law in this country, for the protection of the health of its citizens, terrestrial welfare and all other forms of the ecological base. This Article is to be simply stated in the cases of the two other case study countries, without reaffirming any prior environmental principle, as this does not exist in these two latter cases.

## Explanatory Memorandum

The government of this country administers the land on behalf of its citizens. Hence, the inclusion of Section 6(h).

### Section 7. Incorporation of Transparency Principles

Whereas environmental law principles highlighted in Article 6 are included into the administration of toxic waste trade issues, for the avoidance of protectionism, the following transparency principles are also hereby included in the toxic waste trade law:

(a) Rule of Reason, Necessity/ Proportionality Analysis: While requiring all imports of toxic waste to be elucidated in the official language of this country (English, French or Afrikaans), it must be stressed that this legal requirement is directly relevant for the protection of public and environmental health.

## Explanatory Memorandum

In the absence of such clear stipulations, such substances may be consumed by the public, mishandled and then, cause all manner of negative effects to human and ecological health.

(b) Relevance to the Conservation of Human, Terrestrial and Ecological Health: These soft law environmental principles shall be imposed with a view to protecting the health of the population and the environment. Hence, the refusal of the Inter-Agency Permit Committee in each country to grant the importation or exportation of toxic waste substances must be done with a view to necessarily protecting such forms of life. The reasons for such refusal must be clearly provided.

(c) Disguised Restriction/ Discrimination:

(i) The substances such as PCBs which are outlawed in toto and can never be traded in, for reasons of their excessive toxicity, have been attached in Annex 4 to this law. Such prohibition must be publicly announced and submitted in documented form to the Basel, Bamako, WTO and NEPAD secretariats, as well as the African regional and sub-regional mechanisms.

(ii) For the avoidance of discrimination, a tax on any toxic waste, petroleum or other substance containing toxic waste shall be the same for locally produced and foreign goods, where these goods are the same.

(d) Foreign-Domestic Jurisdiction: While exhorting the respective Inter-Agency mechanism in each case study country to require ecolabelling and environmental labelling schemes from exporters of toxic waste from other countries into this country as per Article 6(b)(ii), the Committee shall not interfere with the laws and processing standards of other countries on toxic waste. The requirement for these schemes is simply to protect the ecological and human health of this country. Scientific evaluations are therefore required.

## **Section 8. Punitive Enforcement**

*(a) An individual, group of people or company found guilty of attempting to contravene or actually contravening any of the requirements of this law shall pay a fine of \$ 3 million US dollars.*

*(b) If an individual or company, who/which illegally trades in toxic waste and there is no deleterious consequence on another individual or the environment, the party who engaged in the illegal toxic waste trading activity shall still be made to pay a fine to the state.*

*(c) If an illegal toxic waste trading activity negatively affects the environment or health of individual(s) or their surrounding communities, the person/people/companies responsible for this act, shall be made to pay damages to the injured parties and a fine to the state. Subject to Section 8(a) and depending on the magnitude of the harm inflicted on the individual or the environment, the court shall determine the amount of damages to be paid.*

## **Section 9. Liability**

*Where a person, without obtaining a permit from the Inter-Agency Permit Committee, purchases, sells, imports, transits, deposits, exports or stocks toxic wastes or there is sufficient proof that this party purports to carry one of these acts without the requisite permission from each country's Inter-Agency Permit Body/Hazardous Pesticides Committee/Inter-Ministerial Committee in Article 3 above, such a person may be accountable in a court of law in this country, in accordance with Article 8 of this law. This provision shall be applicable to a foreign company or foreign individual which/who is found guilty of illegally trading in toxic waste in this country. If found guilty, the foreign party shall be made to pay a fine to the state and damages to the individual or community, on which the harm was inflicted.*

## **Section 10. Liability of Offenders**

### **(a) Joint and Several Liability**

*Anyone who contravenes any of the provisions of this law, aids and abets a person to infringe upon this law, or conspires in the commission of such acts or the omission of any of the above principles in toxic waste importation and exportation, shall be accountable in a court of law in this land, as per Article 8 of this law.*

### **(b) Extended Producer Liability from Cradle to Grave**

*Generators of toxic waste and persons involved in recycling such waste may be held accountable at any stage of a life-span of a given product. Therefore, it is incumbent upon producers of toxic waste to ensure that such waste is in an environmentally sound condition when being exported or sold to other parties within the territory of the country. These producers may be liable for fines or imprisonment during the entire life cycle, that is, cradle to grave life span of the goods.*

**(c) Retroactive Liability**

Where environmental or human health is adversely affected as a result of the harmful effects of toxic waste, the party or company responsible for such negative environmental or health impacts will be held liable, even if there is a change in the existing law at the time when such detrimental impacts occurred.

**(d) Liability of Customs Officials**

In case of illegal imports and exports of toxic waste, the Inter-Agency Committee of each country shall set up an Investigative Commission of Inquiry to find out all pertinent facts relating to the illegal transaction. In this regard, in addition to generators of waste, the customs officer at the time when this transaction occurred will be given an opportunity to explain the details of the case to the Committee. Where necessary, he/she shall be liable for a criminal offence of fines/imprisonment or both, in a court of law. Once a substance is banned from being traded in, under Annex 4 of this law, its negative consequences on human or environmental health need not be proved. The fact that it is banned provides sufficient grounds for holding such officers accountable.

**Section 11. Port of Entry of Toxic Waste**

To facilitate the close monitoring of imports and exports of toxic waste, there shall be only one port, namely Durban, within the country, through which these substances will be shipped.

However, Ghana would use only one locus, the port of Tema, and Côte d'Ivoire, only Grand-Bassam as the only ports in each respective case, through which these substances will be shipped.

**Complementary Matters**

**Section 12. Case-by-Case Basis Bilateral Agreements**

In very limited and exceptional circumstances where this country deems it financially beneficial to import or export certain forms of toxic waste from industrialised countries, it can, under very empirical scientific and environmental evaluations, import such waste from developed countries. This will be permissible by the Inter-Agency Permit Committee/Hazardous Pesticides Committee/Inter-Ministerial Committee, subject to the provisions of Article 3(a). Such trade will however be on an ad-hoc basis and based on case-by-case agreements with these industrialised countries.

In the case of Ghana, it shall be added that:

While collaborating with the Inter-Agency Permit Schemes of other countries as per Article 3(f), the Hazardous Pesticides Committee shall ensure that lessons are borrowed from South Africa, for the establishment of at least one

environmental NGO each in the border towns of Tema, Aflao, Takoradi and Paga. These NGOs shall act as monitoring mechanisms on the imports and exports of toxic waste into and from this country.

In the case of Côte d'Ivoire, this same additional clause in Ghana's situation, will be added to its Article 12, excepting that the border towns for the establishment of NGOs monitoring trends in toxic waste trade would be San Pedro, Sassandra, Grand-Bassam, Bondoukou, Odienné and Buma.

**Section 13. Requirement for Participants to WTO Institutes in Nairobi and Casablanca, and Basel Convention Regional Centres to Present Documented Reports to Local Ministries and Other Offices Involved in Toxic Waste Trade Regulation**

(a) Participants to the training sessions of the above-mentioned Institutes shall be required to disseminate information in documented form, concerning experiences learned, with the Inter-Agency Permit Committee/Hazardous Pesticides Committee/Inter-Ministerial Committee.

(b) Participants are further exhorted to share such information as well with other offices, such as relevant environmental NGOs, who are involved in toxic waste trade regulation. Such lessons learned should also be shared with other parties from similar offices in other countries within the continent, and vice versa.

(c) Participants to these sessions must also be empowered to provide input and present documented reports to these offices on trends involved in toxic waste trade regulation at municipal level, as well as the successes and obstacles encountered in this light, instead of simply receiving lectures during these sessions. The reports must be transmitted to the offices before the sessions for prior approval and subsequently discussed at these sessions; for charting the way forward.

**Section 14. Traineeships, Internships and Consultancies**

(a) The Inter-Agency Permit Committee/Hazardous Pesticides Committee/Inter-Ministerial Committee shall ensure that part of pre-and post-University National Service posts, as well as internships and consultancies be arranged on an annual basis, to train prospective officers in matters pertaining to toxic waste trade regulation. Such persons may be sent to the relevant regional mechanisms for further training, if needed. They shall further liaise with officials from the WTO, UNEP and BCRCs, for the acquisition of further knowledge in toxic waste trade regulation.

(b) Basic training in sound toxic waste practices shall be included in the environmental curricula of primary school education. This shall be monitored by each country's Inter-Agency Permit Scheme, in close collaboration with its Ministry/Department of Education.

### **Section 15. Establishment of Recycling Centres**

*The Inter-Agency Permit Committee/Committee/Hazardous Pesticides Committee/Inter-Ministerial Committee shall in co-operation with relevant NGOs, require consultants in Article 14(a) above to help individuals set up and manage recycling centres in some communities, for collecting used items and recycling. Once every six months, these consultants, in partnership with the managers of these centres, will be required to submit progress reports to this country's Inter-Agency Committee detailing the contribution of these centres to poverty alleviation through income generation and employment creation. These reports should further highlight the environmental measures which are being implemented in these recycling projects, the successes encountered and the remaining challenges. To facilitate recycling, the Committee shall also ensure that companies who sell any toxic waste substance, pay a fee upon sale of such items.*

### **Section 16. Establishment of Monitoring Mechanisms**

*While collaborating with the Inter-Agency schemes of the two other countries, this country's Inter-Agency Permit Committee/Hazardous Pesticides Committee/Inter-Ministerial Committee shall ensure that the already established NGOs impart lessons to the other two case study countries, through the forging of partnerships for the possibility of establishing NGOs which monitor toxic waste trends within these two other countries.*

### **6 (C) Conclusion**

Through the proposals for the model treaty and law in this Chapter, the main goal of this thesis has been attained. The suggested legal treaty evidently harmonises trade and environmental goals at the African regional and sub-regional levels, while the recommended law does so at various municipal levels of the three case study countries. These instruments also seek to regulate trade in toxic waste, without intruding on other countries' sovereignty. In making the proposals for formulating this model African treaty and municipal law on toxic waste trade, due attention was paid to discussions in the previous chapters and the findings of the research project of this thesis.

Therefore, proposals have been made for the need to realistically define hazardous waste while taking into consideration, its possible generation of financial benefits and possible adverse impacts on human health and the environment. The fact that trade in toxic waste can raise income, has been proved in Chapters 2 and 5. On the other hand, the possibility of such toxic waste destroying the environment has been also discussed in Chapter 2 and the research project of this thesis. The need to incorporate scientific evidence as part of the model toxic waste trade law is specifically relevant to the second question of the questionnaire of the research project to this thesis, that is Annex 2. This specific point

of inquiry seeks elucidation on the specific ways in which hazardous waste affects human and ecological health. The answers can be discerned from the contents and findings of the research project which are evaluated in Annex 3. Such scientific explanations ensure transparency and the absence of protectionism in rejecting the imports of certain forms of toxic waste, as spelt out in the model law in this Chapter. Compounded with this, it will also educate people who handle these substances on the sort of potential hazards which are involved here. The model treaty and law have therefore made room for clearly distinguishing between the various forms of waste disposal and treatment options which will be appropriately utilised for different categories of waste, depending on their different levels of toxicity.

Furthermore, owing to the hazards involved in handling toxic waste, the model legislative instruments in this Chapter make it imperative that anyone who handles this substance, whether for recycling or final treatment, must obtain a licence from the ministries of environment, trade, health and other relevant ministries first. Here, an Inter-Agency Permit Scheme is specifically required. This scheme, as indicated, could be established by relevant governmental ministries/departments of environment, trade, health, NGOs and other relevant offices for the purposes of granting permission to future importers or exporters of hazardous waste. Owing to the potential dangers which this waste could cause as evident from Chapters 2 and 5, possessing these substances without the necessary governmental approval in documented form from the Inter-Agency Permit Scheme, may be tantamount to an offence, punishable by fine or imprisonment.

Another important feature of the model treaty and law is the requirement for these legal instruments to adopt the preventive precautionary approach rather than the polluter pays doctrine. This could make companies adopt cleaner and greener production methods rather than cause all manner of environmental perils and then clean-up after that. The need to apply these preventive and precautionary principles of foresight vis-à-vis incorporating lessons such as the non-discrimination, necessity/proportionality tests discussed in Chapter 4 is also important. Therefore, these measures of environmental protection do not just relate to the conservation of environmental health, but must be directly and not remotely related to such conservation. By adopting this approach, the model treaty and law in Chapter 6 strike a balance between trading and protecting the environment, in terms of hazardous waste activity.

The necessity to include the legal standing and class action principles in the model treaty and law on toxic waste trade make these proposed instruments have an impact which is felt in reality. Here, the basic rationale is that when anybody's right to life or decent environment is threatened, or the person has reason to believe that this right is being jeopardised or will be jeopardised from current or prospective imports and exports of toxic waste, such a person should be entitled to legal action and effective judicial redress. This leaves no room for ambiguity. It also ties in with discussions in Chapter 3 on this principle, as well as Chapter 5, where it is portrayed that while the legal standing principle is present only in South Africa's 1996 constitution, it is lacking in the two other countries. Regarding class action, this has been proposed as part of the laws in this Chapter since this principle is also absent in all three countries' municipal regimes and respective constitutions.

The requirement for imposing harsher penalties of huge fines and long-term imprisonment sentences within the model treaties of African regional and sub-regional mechanisms, as well as the various municipal laws of South Africa, Ghana and Côte d'Ivoire are all recommended in this Chapter. The need for other forms of liability, such as the extended liability and retroactive liability, are all reiterated here. With the extended liability principle, producers adhere to the best environmental considerations ever in their manufacturing processes, since they could be held accountable at any stage of a life-span of a given product. With the introduction of the retroactive liability, companies incorporate the soundest possible environmental principles, as they or their future successors will always have to account for any forms of hazardous waste mismanagement. The model legal mechanisms also clearly provide for incentives, fines and punitive enforcement, which should be proportionate to the level and extent of the resultant environmental harm from hazardous waste trade.

While advocating these and other measures in the model law, a great deal of caution was also accorded to recommendations in Chapter 5 and the research project, on the particular need for the establishment of mechanisms for capacity building and institutional support to complement the model law. These proposals include the need for countries' civil servants who participate in WTO training sessions to share information on lessons learned with members of the Inter-Ministerial/Inter-Agency Committee, NGOs working on toxic waste issues and other affected parties. From Chapter 5 and the research project, such information sharing is lacking in many instances. Hence, within a given country, some agencies working on the same issue of toxic waste trade regulation are not abreast with current developments when compared to other agencies in that same municipal setting.



Finally, it can be acknowledged that the recommended model legislative mechanisms in this chapter are useful guides which are devoted to the promotion of environmentally *sustainable* intra-African toxic waste trade and *sustainable* international toxic waste trade, when necessary. The next Chapter concludes all the discussions in this dissertation.

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<sup>1</sup> The Hon. Justice S.N. Peete, "Lesotho Country Report on Sustainable Development and the Role of Law", in Division of Policy Development and Law, UNEP, *Global Judges Symposium on Sustainable and the Role of Law* (Johannesburg, South Africa, 18-20 August 2002, Report, (Country Papers), Volume II), 226-238, at 234.

<sup>2</sup> Based on language of preambular clause of WTO Agreement.

<sup>3</sup> Based on language of WTO Article XX Exceptions.

<sup>4</sup> Based partly on Articles 122(3) and (6) of COMESA Treaty 1993.

<sup>5</sup> Based on Article 125 of COMESA Treaty 1993.

<sup>6</sup> Based on definition from DWAF, Requirements for Waste and Forestry, Requirements for Waste Classification (1998), Section 2.4, p-2-4.

<sup>7</sup> DWAF (1998) Ibid, at Page 2-4.

<sup>8</sup> DWAF (1998), Ibid, Article 2.3.2, p2-3.

<sup>9</sup> Scientific analysis by Dr. Herbert Needleman, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, USA, produced in <http://www.cheg.org/SF/Lead.html>, Center for Health, Environment and Justice, Everyone's Backyard; Science Feature, "Mislead Science: The Dangers of Lead".

<sup>10</sup> See scientific evidence provided by scientist from Roswell Park Memorial Institute, Buffalo, New York, USA, in "Love Canal: Health Type vs Health Fact", *American Council on Science and Health* (Editorial), 1997 and 1998.

<sup>11</sup> Analysis by Dr. Vernon Houk, in Rachel's Hazardous Waste News # 249, September 4, 1991, *News and Resources for Environmental Justice*, Environmental Research Foundation, Annapolis, Maryland, USA. For further references on the effects of toxic waste on human and terrestrial health, see International Labour Organization, *Encyclopaedia of Occupational Health and Safety*, Volume 2; *Grace Factory Farm Project*, News and Publications, February 2002; Geschwind, SA et al, "Risk of Congenital malformations Associated With Proximity to Hazardous Waste Sites", *AJE*, Volume 135 (1992), 1197-1207.

## **CHAPTER 7: CONCLUSION**

This thesis has demonstrated the importance of promoting free trade while safeguarding sound principles of environmental management within the framework of international, regional and national legislation to regulate trade in toxic waste.

In this light, discussions in Chapter 2 have shown that market liberalism, as opposed to protectionism, is a worthy ideal to pursue at the municipal, regional and international levels. While protectionism has sometimes been hurtful to many countries in the global economic order, ample evidence has been provided in various discussions to illustrate the benefits which can accrue from free trade. These include income generation and specialisation. The three case study countries and other countries under national sovereignty are free to pursue market liberalism. While the three case study countries have established laws to promote free trade, as far as intra-African trade is concerned, problems such as political instability in African countries and poor infrastructure prevent some of these ideals from being realised. With the newly established Conflict Prevention Mechanism of the NEPAD and the AU's Peace and Security Mechanism, for instance, free trade and more positive related objectives may be better realised however.

However, discussions have also shown that the three case study countries can also resort to protectionism, when necessary. This stems from the point which has been emphasised that trade liberalisation among other things, can destroy the environment, creating the problem of externality. Here, trade objectives and environmental protection goals then become contradictory to each other. However, a careful incorporation of environmental principles into trading activity could also lead to sustainable development principles, as this thesis has shown. The workings of the WTO to strike such a balance in international trading activity are evident from the many examples in case law which have been discussed.

This also links to one of the central tenets of this thesis, that trade liberalism which in the world economic order, was for decades, pursued with the sole goal of income generation, is now being pursued with the objective of attaining sustainable development as well. On the particular issue of trading in toxic waste, many examples and research findings from the three case study countries have shown that though these three countries are committed to promoting free trade including trade in

toxic waste, they have also refused to import substances and chemicals which may contaminate their environment.

Furthermore, this thesis has in Chapter 3, also provided in-depth analysis on the importance of safeguarding sound environmental principles in international, regional and national legal regimes in the international economic order. While the three case study countries and others, under national sovereignty can import and export substances of any nature, they also have a duty not to trade in harmful substances including toxic waste, which can damage neighbouring territories, owing to the transboundary nature of such waste. The requirement for this neighbourly approach has its foundations in customary international law. These three case study countries also require multilateralism in adopting relevant international environmental conventions to deal with these problems. Recommendations have been made for improving the liability of offenders under these conventions. The importance of international soft law principles and their development have also been discussed. Evaluations were made of the applicability of these principles to the respective constitutions and municipal legal regimes of the three case study countries. While South Africa and Côte d'Ivoire have incorporated many of these principles in their respective constitutions as well as some of their policies which deal with toxic waste, Ghana still has a long way to go. Pitfalls are identified in the case of all three countries and relevant recommendations made then. The extent to which these three case study countries promote these soft law principles at municipal and regional levels, through their membership to the international and regional conventions, have all been analysed, with a view to establishing how best their various national laws on toxic waste trade can promote trade and environment ideals.

In Chapter 3, the thesis has further discussed the fact that these soft law principles do apply to relevant international and regional treaties and other initiatives which deal with toxic waste trade. While these treaties effectively tackle trade in toxic waste, proposals have been made to enable their workings have more impact in reality. These include the need for the establishment of a Trade and Environment body under the NEPAD, for instance. This body could also deal with the regulation of toxic waste trade, which is currently not accorded much priority under the NEPAD and AU.

The extent to which these soft law principles, when used by developed countries, could pose problems for developing countries' industries in their trade in hazardous waste has been discussed, with a view

to making improvements in these trends. This could create problems including extraterritoriality and unilateralism, except in rare cases when principles such as opposability come into play. While backing these claims with concrete examples drawn from the three African case study countries, this thesis also shows that though legal mechanisms which embody environmental principles are required at all levels, such environmental regulations do sometimes constitute unjustifiable impediments to multilateral free trade. The main problem faced by these countries is the lack of funding to ensure that their companies adhere to these high environmental standards. Here, the solution may be for the governments of these countries to prioritise these issues and help fund these companies. Soft law principles could also be incorporated by the companies in the three case study countries, through the use of ecolabelling and other schemes, as a means of enhancing their regulatory systems in toxic waste trade. These are important because as shown in the thesis, the inclusion of sound environmental principles in such activities could also positively improve the quality of products these countries export, thereby, enabling them to gain increased market access to developed countries' markets, *inter-alia*.

This raises the question of the trade and environment debate, discussed in Chapter 4. Here, the nexus between these two spheres can be traced to many decades back. The establishment of relevant conventions and the workings of the UN, to prevent a situation where environmental regulations could sometimes constitute unjustifiable impediments to multilateral free trade, are all reviewed. Here, emphasis is put on the increasingly crucial and relatively topical international question of whether free trade in all manner of substances can harm the environment, and whether environmental laws are simply used as a subtle means of reinforcing protectionism in international trade. Events responsible for this debate and relevant case law have thus been discussed with a view to elaborating on the ways in which these two concepts impact each other positively and negatively, as evident in Chapters 2 and 3. Out of the discussions on the case law and environmentally-related aspects of WTO Agreements in Chapter 4, lessons such as the need to avoid arbitrary trade restrictive measures while seeking environmental protection and the need to abide by the necessity/proportionality principle while also adhering to principles such as the preventive and precautionary approaches, have been extracted. These lessons are incorporated into the model municipal laws on toxic waste trade in Chapter 6.

Chapter 4 is more or less descriptive for some part, as it provides the details and events responsible for this debate, as well as the WTO provisions which touch on the environment.

After that, a more analytical approach is adopted with the view of discerning the essential principles such as proportionality and necessity which arise within this debate from the GATT/WTO Article XX exceptions and relevant case law. Against this background, the advantageous and disadvantageous consequences of these principles for developing countries including South Africa, Ghana and Côte d'Ivoire in their legal management of hazardous waste trade are relevant. These principles are important as they actually help these countries enact toxic waste trade laws which strike a harmonious balance between trade and environmental protection. By adhering to this approach, the first four chapters of this thesis also suggest how these countries can devise legal mechanisms for regulating trade in toxic waste, how they can evade the pitfalls which arise in the debate and make use of positive areas within the debate.

After discussing the trade and environment debate within the broader context and extracting principles for the model treaty and law of this thesis, discussions in Chapter 5 also delve into the specific and narrower question concerning the waste trade policies and practices of these three countries, which obviously arises out of the earlier broader picture. From this perspective, examples of state practices and policies are discussed as relevant case studies. Instances of the importation and exportation of hazardous waste are discussed as they pertain to South Africa, Ghana and Côte d'Ivoire. Proposals are also made regarding case studies for intra-African trade, with recommendations for recycling centres to be established for different African sub-regional centres. This is because as discovered during the research trip, not much recycling is being carried out in Ghana and Côte d'Ivoire, while in South Africa, this is to a little extent. The ways to dispose of these forms of waste on the other hand, still pose a problem throughout the communities of these countries.

Much information gathered from personal discussions and structured questionnaires which were distributed to various governmental ministries, NGOs, law firms and institutes within these countries were incorporated into discussions in Chapter 5. These findings established that Côte d'Ivoire has a law on toxic waste trade, while South Africa has a series of policies on the subject matter. Ghana also has many policies on various types of toxic waste. Common problems such as the lack of adequate penalties in the case of Ghana and South Africa have been highlighted, while Côte d'Ivoire needs to add the requirement not only for the ban on the importation of certain categories of toxic waste, but on their exportation as well. Another problem is the lack of sufficient staff to tackle toxic waste trade matters in these three countries. Here, proposals include the need for the WTO training courses in

Nairobi and Casablanca to be extended to involve environmental considerations, and particularly, hazardous waste trade matters. This proposal could help ensure that the staff are better equipped with sufficient knowledge to deal with these issues, within the three case study countries.

Having identified these problems, Chapter 6 then proposes a model treaty which strikes a balance between free trade and environmental objectives, at regional and sub-regional levels. It further proposes a model law which strikes the same balance at the various municipal levels of the three case study countries. This model law could also be applicable to other African countries.

In effect, in contemporary times when sustainable development is important in almost every facet of policy-making including the regulation of free trade, harmonising trade and environmental objectives should become relatively easier. The challenge then is to ensure that the key objectives of economic prosperity, ecological balance and social progress become the simultaneous targets of legal regimes regulating toxic waste trade at global, regional and municipal spheres. This thesis has demonstrated that through rises in income, free trade in toxic waste could result in economic prosperity. Furthermore, the implementation of environmental law rules in toxic waste trade results in ecological protection. Trade in toxic waste could also lead to employment creation, income generation, greater levels of capacity building and rises in environmental standards. This evidently reflects social upliftment. The model legal mechanisms of this thesis should then ultimately help the three case study countries and others within this continent to chart the way forward, as they strive to realise the ideals of regional integration in the twenty first century and beyond.

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University of Cape Town

## **ANNEXES 1 to 3: RESEARCH PROJECT INTO HAZARDOUS WASTE TRADE POLICIES AND PRACTICES IN GHANA, SOUTH AFRICA and CÔTE D'IVOIRE**

### **Introductory Remarks**

#### **(a) Type of Research Method**

Since the norms of interest of this research project are textual and not numerical/statistical, the basic approach adopted to obtaining information here is the qualitative type of research methodology. Hence, through the adoption of Crabtree and Miller's qualitative survey style of inquiry, analytical inferences are made about an otherwise ambiguous point. The main aim here is to arrive at a representative probability of sample, based on the sum total of answers gathered from a defined class of persons by means of a research instrument.<sup>1</sup> The specific research instrument is in this case a structured interview which assumes the form of a rigid questionnaire. For example, question 1 inquires into the definition of toxic waste, as distinct from other forms of waste. Through the majority of answers obtained, it becomes evident that while South African NGOs and Ghanaian Ministries and offices define this substance with due regard to its health and environmental hazards, many South African Departments working on this issue adopt a dualistic approach to defining hazardous waste by considering both the health and financially beneficial aspects of toxic waste as well. From these answers, it becomes reasonably clear that whereas Ghanaian and South African NGOs are opposed to trading in toxic waste altogether, South African Departments do favour such trade, provided it is done in a sustainable manner.

Furthermore, through the occasional rating scale in the questionnaire, the totality of answers obtained enables conclusions to be drawn about a point which needs clarification. For instance, Question 8 (a) asks: "On a scale of 1 to 5 (best to worst), how would you rate the current law and policy in your country in terms of sufficiently addressing hazardous waste import and export issues?" Out of the five answers obtained in the Ghanaian context, one rates this law as "5", two rate it as "4", one rates it as "3" and yet another office does not provide any answer. The overall conclusion which could be conveniently drawn here is that the law in Ghana does not sufficiently address hazardous waste issues. In South Africa, out of twelve offices interviewed on this question, two rate the law as "4", one rates it as "5" and the remaining nine do not provide any answer with one of the nine asserting that the law is

generally fine, but needs strengthening in terms of its enforcement. Clearly, from those who provided answers, the law is not adequate enough. Compounded with this, from these answers, the necessity to equip the relevant offices with adequate knowledge on the workings of the law/policy of toxic waste in this country, so as to readily evaluate it at any given moment, cannot be overlooked.

It must also be stressed that this style of research methodology could be distinguished from the abovementioned numerical and statistical research methodology which deals with numerical and statistical norms. Based on descriptive statistics, this latter method thereby lends itself to the distribution, frequency, size of one or more phenomena, based on descriptive statistics.<sup>2</sup>

#### (b) Mapping One's Territory

Crabtree and Miller provide the advantageous consequences of literally mapping one's territory thus: This enables the researcher to familiarise oneself with the setting from where information is obtained and also, ascertain important facts such as considering differences between trends in one place as opposed to another.<sup>3</sup> Since the candidate's three case study countries are covered by NEPAD, the research inquiry and project were limited to these countries within the African setting. It is beyond the scope of this thesis to provide a geographical map. However, in view of the nature of the discussions, a table with key facts on toxic waste trade patterns of the three countries was deemed to be appropriate. On the issue of mapping one's territory, important determining factors were the differences in the toxic waste trade patterns, the two-month period spent on fact finding in West Africa, and the much greater length of time spent in South Africa. This stems from the fact that this country is the territory in which the candidate was registered for her project/studies. It is also more sophisticated in terms of availability of information from library resources and communication facilities for obtaining further information from relevant offices such as the Secretariat of the Bamako Convention at the AU in Addis Ababa, Ethiopia, the Basel Secretariat in Geneva, Switzerland and the NEPAD office in Midrand, South Africa.

#### (c) Participation

The main aim of the candidate's participation in the discussions with the various officials who answered the questions in her questionnaire was simply to collect information about the relevant aspects of the workings of the offices which touched on toxic waste trade practices and regulation. To this end, she did not interfere with other aspects of the workings of the various offices and remained as an observer.<sup>4</sup>

#### (d) Key Informants

The key informants were all qualified persons working in international organisations, regional mechanisms and national ministries, institutes and agencies, which dealt with trade and environmental issues, as well as toxic waste matters. Hence, they were carefully chosen on these bases. Given the fact that this thesis dwells on more than one thematic topic, that is, free trade, then environmental protection, and then, toxic waste management, it was impossible to limit oneself to a rigid set of officials from a fixed field. Hence, information for this project was readily obtained from officials working in the Basel Regional Convention Centres in Dakar and Pretoria, the Ministries/Departments of Trade, those of the Environment, the Standards Board and many more. They readily provided the candidate with answers to my inquiry and also, expanded on many grey points. This shed a great deal of light onto the project. In this regard, these informants could be effectively perceived to be "key informants", as they possessed special knowledge, status and access to information which was otherwise denied to the candidate.<sup>5</sup> These key informants were further useful because owing to the pragmatic limits which constrained the candidate from being in all places at all times, such as the war which prevented her from being physically in Abidjan and the financial constraints which precluded her from travelling to Pitermaritzburg personally to interview Groundwatch Institute, they provided her with "access and sponsorship", that is, lots of information on their workings, through e-mail and telephonic discussions.<sup>6</sup> Such information was unavailable except from the key informant. In occasional instances, they did provide any answers to a question, and this was marked as "NA", that is "Not Available".<sup>7</sup>

#### (e) Choice of Questions

The questions in the project were carefully designed on the basis of rigidly structured interviews which are most suitable when there is already the existence of sufficient,

trustworthy information on which to develop the interview schedule.<sup>8</sup> In this case, such information became more adequately known to me only after the interviews. In this regard, this was opposed to semi-structured interviews. While carefully delineating types of questions, the questions in this research project are in line with Spradley's structural questions, as these questions, through elucidating the candidate on the in-depth problems, pitfalls and successes of toxic waste trade policy, expanded and enhanced the description of the particular area of interest, that is, toxic waste trade regulation.<sup>9</sup> Hence, though the candidate had prior knowledge of the definition of hazardous waste, from the South African Hazardous Substances Act (1973) for instance, as well as the Basel and Bamako Conventions, she sought further insights from these officials on how they define this substance as well as its impacts on the environment and health of human beings. This provided a background for ascertaining the sort of substances which each country trades legally imports and exports, with respect to toxic waste. Here, the South African perception of this substance, generally takes the financial benefits of toxic waste into consideration, while defining toxic waste. Ghanaian and Ivorian perspectives on the other hand, are slightly different, as they dwell more on the health-aspects of toxic waste. Based on this, a proposal is put forward for more uniformity in the definition of this substance, so that in the advent of NEPAD, harmonisation of rules and definitions concerning trade in this substance, will facilitate free intra-African toxic waste trade.

#### (f) Analysis and Interpretation of Data

Based on the clarified and expanded information obtained from the interviewees, the candidate was able to formulate certain tenets about existing toxic waste trade policy in the three case study countries. While trade is being conducted with a gradual focus on sustainable development at the international level, this needs to be enforced in more depth at the municipal levels of these countries, with higher fines and penalties enforced, in the event of breach of the stipulations of the model law, which is needed, and is lacking, from an analysis of the information obtained. For example, question 8(d) inquires into whether there are sufficient penalties for offenders of existing toxic waste laws and policies. From the information gathered, most of the offices indicate that such penalties are lacking in the Ghanaian and South African context, but are also present in the Ivorian context. An interpretation and analysis of such information ultimately establish the point that a loophole

clearly exists, in that, in the event of illegally trading in toxic waste, very little or no penalties are imposed on offenders. From this, it is argued that this gap on liability of offenders needs to be bridged. A proposal is then put forward that this be done by incorporating penalties for huge fines and imprisonment sentences, as an integral component of the model law.

#### (g) Ancillary Information

The results of this project provide valuable inputs for policy guidance in the three case study countries' administration of toxic waste trade laws. While charting the way forward, these lessons are made to reflect in the stipulations of the model law in Chapter 6. This could be borrowed and bent to suit the cases of other African countries in the foreseeable future.

In light of the many series of works which have been already published on the trade and environment debate, and more specifically, toxic waste trade issues, this research project and thesis on the whole, are essentially supplementary to these works. Furthermore, these do not seek to override any prior studies in this field. Some of these studies have been cited in this project, for instance, Esty<sup>10</sup> and Marbury.<sup>11</sup>

#### (h) Presentation

The list of key informants are listed, as well as the positions/offices held by these informants. After that, the questions in the structured questionnaires regarding different aspects of toxic waste importation and exportation issues are also put forward. The answers provided by each of these offices to the questions are then stated, with an analysis made of each of these answers. Through this series of analyses, insights are provided concerning the practical problems encountered by these officers in their day to day regulation of toxic waste trade laws, *inter-alia*. These include a serious lack of collaboration amongst officials working on these issues from different ministries and existing institutional gaps in agencies dealing with toxic waste trade importation and exportation. These trends generally apply to all three case study countries.



## **Annex 1 : List of People Interviewed for Research Project**

### **(A) GHANA**

- (1) Official (Consultant), FAO, Accra;
- (2) Officer in Charge of Chemicals Management, Chemistry Department, GAEC, Accra;
- (3) Mr. Michael O. Kwakye, Senior Officer, Chemical Division, EPA, MEST, Accra;
- (4) Mr. Larsey Mensah, Legal Officer, MEST, Accra;
- (5) Ms. Genevieve Baah, Officer in Charge of Exports, Ghana Standards Board, Accra.

### **(B) SOUTH AFRICA**

- (1) Mr. Buti Mathebula, DEAT, Pretoria;
- (2) Dr. Henry Abbott, DWAF, Pretoria ;
- (3) Mr. Patrick Dowling, WESWC, Cape Town;
- (4) Ms. Valerie Mogg, Attorney, Bowman Attorneys, Johannesburg;
- (5) Mr. Tsitsi Mahema, Senior Officer, APD/DEAT, Pretoria;
- (6) Ms. Nomphelo Daniel, Officer, BCRC, Pretoria;
- (7) Mr. Louw Marsh, Economic Officer, DTI, Pretoria;
- (8) Mr. Muna Lakani, GEM, Johannesburg;
- (9) Mr. Mandla Mentoe, EJNF, Johannesburg;
- (10) Dr. Harro Von Blottnitz, UCT/ChemEng, Cape Town;
- (11) Mr. Kerry Murphy, CSIR; Stellenbosch;
- (12) Ms. Linda Ambler, Media and Public Relations Officer, Groundwatch, Pietermaritzburg.

### **(C) CÔTE D'IVOIRE**

- (1) Official, Ministère de l'Environnement, Abidjan.

<sup>1</sup> Crabtree, BF and Miller, WL *Doing Qualitative Research* (Research Methods for Primary Care) Volume 3 SAGE Publications Newbury, Park London, New Delhi (1992), at 5-6; Oppenheim, AN *Questionnaire Design, Interviewing and Attitude Measurement* New Edition, Continuum, London and New York (2001), on discussions pertaining to research design and research techniques, at 6; Mason, J *Qualitative Researching* Sage Publications London, Thousand Oaks, New Delhi (1996), Chapter 2 on Planning and Designing Qualitative Research. (f) in this sub-chapter further discusses data interpretation which is briefly referred to as this point, see Mason (1996), Chapters 6 and 7; Coffee, A and Atkinson, P *Making Sense of Qualitative Data* (Complementary Research Strategies) Sage Publications Thousand Oaks, London, New Delhi (1996), Chapters 2 and 6. In formulating this research project, several PhD dissertations and their research projects were also consulted, throughout libraries such as those at the Universities of Cape Town, Witwatersrand and Stellenbosch. A notable example of these dissertations, was Bennett, T *The Legal Status of African Women in Zimbabwe-Rhodesia* (Being a Thesis Submitted for the Degree of Doctor of Philosophy in the Faculty of Law, University of Cape Town, South Africa, 1980). Though it touched on a different subject matter from that of this thesis, the overall structure and important details which a research project should possess, as provided by the analytical insights of Prof. Bennett here, were extremely useful.

<sup>2</sup> Crabtree and Miller (1992), Ibid, at 6; Alreck, PL and Settle, RB *The Survey Research Handbook* Second Edition Mc Graw Hill (1995), at 44, 61, 256.

<sup>3</sup> Crabtree and Miller (1992), Ibid, at 55.

<sup>4</sup> Crabtree and Miller (1992), Ibid, at 56-57.

<sup>5</sup> Crabtree and Miller (1992), Ibid, at 57, 78-79 and Chapter 2 generally; See also, Mason (1996), Supra 1, at 67

<sup>6</sup> On this and advantages of using key informants with specialised knowledge in particular area, see Crabtree and Miller (1992), Ibid, at 77 and 78.

<sup>7</sup> This is in conformity with the requirements for ethical considerations on the part of the researcher, including respecting the respondent's right to privacy and the right to refuse to answer certain questions, as advocated by Oppenheim, see Oppenheim (2001), Supra 1, at 83-84; See also, Miles, MB and Huberman, AM *Qualitative Data Analysis* (An Expanded Sourcebook) Second Edition Sage Publications, Thousand Oaks, London, New Delhi (1994), Chapter 11, on discussions pertaining to ethical issues while conducting analysis.

<sup>8</sup> Crabtree and Miller (1992), Supra 6, at 16; Mason (1996), Supra 5, Chapter 3 on Interviewing.

<sup>9</sup> See Spradley in Crabtree and Miller (1992), at 82.

<sup>10</sup> Esty, DC *Greening the GATT*, Institute for International Economics, Washington DC (1994).

<sup>11</sup> Marbury, HJ "Hazardous Waste Exportation: The Global Manifestation of Environmental Racism" (March 1995) *Vanderbilt JTL*, Vol. 28 No. 2, 251-294.

## **Annex 2 : Points of Investigation and Specific Questions for Research Project**

The purpose of this project was to gain an in-depth knowledge and practical understanding of various issues pertaining to the laws and practices of hazardous waste importation and exportation, in select African countries, namely, South Africa, Ghana and Côte d'Ivoire. This exercise was carried out in order to ascertain the existing problems in this sphere and how they can be effectively addressed. Based on these findings, a model hazardous waste legislative mechanism would be proposed for these countries.

In addition to distributing questionnaires, personal interviews were held with the Ministries and Departments of Environmental Affairs and Tourism, Trade and Industry, Health, Water Affairs and Forestry, Minerals and Energy, Agriculture, Offices in charge of toxic waste issues such as the Ghana Atomic Energy Commission and NGOs such as Earthlife Africa and Environmental Justice Network Forum.

The following points were specifically investigated:

(1) What would you define hazardous waste to be, as distinguished from other kinds of waste and what are its constituent elements?

(2) How does hazardous waste specifically affect all aspects of the environmental, human, marine and atmospheric health of a country?

(3) (a) What steps are you taking to promote free trade in your country?

(b) Does your country send participants to the WTO Training Institutes in Nairobi and Casablanca?

(c) What are past and present examples of the importation of hazardous waste from the first world and other countries into your country, in the course of free trade?

(d) What are past and present examples of the exportation of hazardous waste from your country into the first world?

(4)(a) Does your country import and export hazardous waste from and into the countries of the continent and those with which it has entered into regional integration agreements?

(b) If yes, on a scale of 1 to 5 (best to worst), how does this positively and negatively affect this country and its regional trading partners in the course of free trade?

(5) (a) Does your country have adequate means of treating hazardous waste in terms of recycling, reprocessing and final disposal?

(b) How do you dispose of various wastes, such as medical, agricultural, household, industrial and mining waste?

(c) Are any of these categories of waste exported or imported for financial benefits and if yes, where do you send them and import them from?

(6) Questions 6 dwells on the various aspects of the laws on hazardous waste, from international and regional perspectives.

(a) Has your country adopted the Basel Convention?

(b) Has your country adopted the Bamako Convention?

(c) What are the various municipal laws of your country which have been enacted in accordance with these three mechanisms?

(d) How is your country benefiting from the training programmes and workshops of the Basel Convention Regional Centres in Africa?

(7) What is your country's attitude towards promoting the NEPAD?

(8) Questions 8 dwells on the various aspects of the laws on hazardous waste, from municipal perspectives.

(a) On a scale of 1 to 5 (best to worst), how would you rate the current law and policy in your country in terms of sufficiently addressing hazardous waste import and export issues?

(b) How has your municipal law developed in this area?

(c) What are the areas in which the law effectively addresses hazardous waste trade and what are the areas in which it needs to be improved upon?

(d) Are there enough penalties for those who contravene the current regulations on hazardous waste importation and exportation into and from your country, and how could this be strengthened?

(e) (i) Regarding the implementation of these laws, do the various Departments and Organizations which deal with hazardous waste regulations in your country work in close collaboration to deal with this issue?

(e) (ii) What, if any, are the other problems which the regulatory authorities encounter in the management of hazardous waste trade and how can they be resolved?

(9) How does one verify whether a substance being imported into your country is really hazardous waste, in order to ensure that on the one hand, the laws of your country are strict enough not to import hazardous substances which can actually be environmentally destructive, but on the other hand, that there is no disguised protectionism/discrimination, and substances which are actually not harmful are not classified as toxic, simply because they are being imported from another country?

(10) Which other countries, especially developing ones, could be cited as success stories in the implementation of legislation which resolves hazardous waste trade issues, and how could such lessons be modified to suit the case of your country in its hazardous waste trade regulation?

In the case of South Africa,

(11) With regard to the *Thor Chemicals* case, which of the two would be more desirable for South Africa, and why?

(a) To ban the importation of trade in mercuric and other hazardous substances altogether; or

(b) To devise mechanisms for treating mercuric wastes and how effective would this be (financially, for example)?

Below is a translated version of these questions into French. This was used in Côte d'Ivoire, where French is the official language.

## PROJET DE RECHERCHE

### Projet d'une thèse de doctorat

*L'harmonie de tendances contemporaines dans le droit commercial international avec régulations du milieu naturel : approche sur la régulation et la réglementation du commerce des déchets toxiques, cas de quelques pays africains.*

La finalité précise de ce projet est l'ouverture d'une large connaissance et la facilité d'une compréhension sur l'équation de l'import et l'export des déchets toxiques dans quelques pays africains particulièrement l'Afrique du Sud, le Ghana et la Côte d'Ivoire. Le cadre de ce travail s'établit dans l'unique objectif de tracer un contour réel des problèmes existants et leur évaluation.

Fort de ces découvertes, en égard à ces déchets toxiques, un canevas de mécanisme législatif serait proposé à ces pays.

En plus des questionnaires distribués, des interviews ont été accordées aux ministères et départements suivants : Environnement et Tourisme, Commerce et Industrie, Santé, Eaux et Perçoirs Mines et Energies, Agriculture et des Organisations Non Gouvernementales telle que *Le forum du réseau de la justice et de l'environnement*. Les points ci-après ont fait l'objet de multiples recherches :

1. Comment définirait-on les déchets toxiques? Quelle serait la différence avec les autres sortes de déchets? Quels sont ses constituants?
2. Comment les déchets toxiques affectent-ils l'environnement humain, marin, la santé atmosphérique d'un pays?
3. (a) Quels chemins emprunter pour promouvoir le libre échange dans votre pays?  
(b) Votre pays participe-t-il au séminaire de WTO de Nairobi et Casablanca?  
(c) Quels sont les cas présents et passés de l'exportation des déchets toxiques dans votre pays?

4. (a) Quelle est la politique de l'import-export de votre pays des déchets toxiques conformément aux règles d'intégration régionale?

(b) Si oui, selon l'échelle de 1 à 5, veuillez indiquer le niveau de l'influence positive et négative sur ce pays et sur ses partenaires commerciaux et régionaux dans le cadre de libre-échange.

5. (a) Votre pays possède-t-il des moyens adéquats de traitement des déchets toxiques en terme de reconversion ?

(b) Comment disposez-vous de déchets divers tels qu'en provenance des produits de pharmacie, de l'agriculture, de ménage, des industries et mines?

(c) Toutes ces formes de déchets profitent-elles, en l'import-export, d'un bénéfice financier? Si oui, quelle en est la destination et l'origine?

6. Cette question s'adresse au conformément aux aspects divers de la loi sur les déchets, de perspectives internationale et régionale.

(a) Votre pays a-t-il adopté la convention de Bâle?

(b) Votre pays a-t-il adopté la convention de Bamako?

(c) Quels sont les diverses lois municipales dont l'ordonnance dépend de ces trois mécanismes?

(d) Comment votre pays tire-t-il profit de ce programme de formation et d'ateliers des centres de conventions en Afrique?

7. Quelle est l'attitude de votre pays envers la promotion du NEPAD?

8. Conformément aux aspects divers des lois sur les déchets toxiques:

(a) L'échelle de 1 à 5, comment évalueriez-vous la politique en cours dans votre pays sur l'import-export des déchets toxiques?

(b) Comment cette politique évolue-t-elle dans ce secteur?

(c) Quels sont les secteurs d'échange où cette loi est effectivement en cours? Quels sont les secteurs où elle doit subir une amélioration?

(d) Existe-t-il des pénalités à l'endroit des contra-venants? Comment cette loi pourrait-elle être valide?

(e) (i) Eu égard à ces lois, les départements et les organismes concernés travaillent-ils en parfaite harmonie en vue de mener à bon port cette entreprise?

(e) (ii) Quelles sont les éventuelles préoccupations rencontrées par les autorités dans la gestion du commerce des déchets toxiques?

9. Peut-on évaluer le degré toxique d'une substance importée dans votre pays? D'une part pour s'assurer si les lois en cette matière sont assez strictes d'éviter l'importation de produits en réalité dangereux, destructeurs de l'environnement, d'autre part qu'il n'y ait aucune politique déguisée en protectionnisme (discriminatoire), que les produits réellement sains ne soient taxés comme toxiques tout simplement parce qu'ils sont importés.

10. Quels autres pays pourraient être cités particulièrement en matière de succès dans la mise en oeuvre des lois réglementant le commerce des déchets toxiques? Pourrait-on modifier la conduite, les lois en vigueur pour une politique adéquate du commerce des produits toxiques dans votre pays?

11. Le cas de l'Afrique du sud.

Le cas des *produits chimiques de Thor* : lequel de deux est favorable pour ce pays et pourquoi?

(a) Interdire l'importation et le commerce du mercure et d'autres produits dangereux en tout, ou (b) inventer le mécanisme de traitement de ces déchets et comment pourrait-on rendre cela efficace ou rentable?



### Annex 3: Findings for Research Project

#### (ANSWERS TO POINTS OF INQUIRY FROM QUESTIONNAIRE: ANALYSIS, BASED ON OBSERVATIONS)

##### (A) GHANA

1: What would you define hazardous waste to be, as distinguished from other kinds of waste and what are its constituent elements?

##### Answers

FAO: NA.

GAEC: NA.

EPA: Waste that can, even at low concentrations, have a significant adverse effect on public health and/or the environment. This would be because of its inherent chemical and physical characteristics, such as toxicity, ignitability, corrosiveness, carcinogenicity or other properties.

MEST: This is the same as in the Basel Convention.

Ghana Standards Board: Waste from chemicals such as pesticides residue, for instance, textile, radioactive sources and industries' chemicals that can affect the environment directly or indirectly as well as fauna and flora. These activities from industries resulting in waste production affect the whole eco-system if not controlled.

##### Analysis

From these answers, while the FAO and GAEC provide no concrete definition of hazardous waste, the EPA and the Ghana Standards Board provide a definition which takes the health of human beings and the whole ecological system into consideration. In particular, it is evident from the definition of the Ghana Standards Board that when industrial, textile and other activity is occurring, particular attention must be given to the incorporation of environmental standards, lest humans and ecological life all suffer from the side effects of such activities as a result of the inherent dangers (corrosiveness, carcinogenicity and toxicity, for instance) of toxic waste. The MEST particularly pays attention to the definition provided by the Basel Convention.

According to the definitions provided by this Convention, hazardous wastes are substances of materials which are disposed off, or are intended to be disposed off or are required to be disposed off in accordance with the stipulations of national law.<sup>1</sup> This is exactly the same definition also provided by the Bamako Convention.<sup>2</sup> From these perspectives, hazardous waste should be what the national law of a country deems it to be. It may vary from country to country, given the variations in each country's environmental standards. Hence, the envisaged model law on waste, should incorporate these points concerning the inherent dangers of waste and how it can affect these forms of life, as these facts also originate from competent authorities within the field of toxic waste management and trade, in Ghana.

2: How does hazardous waste specifically affect all aspects of the environmental, human, marine and atmospheric health of a country?

#### Answers

FAO: NA

GAEC: NA.

EPA: Contact the Basel Convention Regional Centre for English-Speaking Africa, to provide more details in this regard:

MEST: The effects on the environment and other media are succinctly captured in the Nigerian Koko Beach affair which occurred in 1988. The Nigerian workers who were contracted to remove the toxic waste came up with all sorts of ailments. Among the ailments were severe chemical burns, nausea, vomiting of blood, partial paralysis and one case of coma. Notwithstanding the removal of the waste, Nigeria was left with contaminated soils. Doctors in the area also recorded elevated levels of cholera and premature births in pregnant mothers. Supposedly, if such wastes end in the marine environment, it will have negative consequences for all marine life as well.

Ghana Standards Board:

(a) Hazardous wastes on the environment:

- Refrigerators containing CFC chlorofluoro carbons deplete the ozone layer.
- Acidic wastes from industries lead to acid rain which in turn kill soil organisms and affect the forests. The soil eventually loses its fertility.

- Organochlorine (a kind of pesticide) used in the cotton industry above certain levels can cause adverse effects.
- Some other pesticides have the residues affecting the environment.
- Exhaust fumes from old cars contain carbon monoxide which can deplete the ozone layer

(b) Hazardous waste in marine water:

- Waste containing cyanide can kill all flora and fauna in the water.

(c) Hazardous waste affecting humans:

- Instant effects of cyanide on humans as well as its prolonged effects can cause death.
- Break down products from azo dye used in the textile industry is known to cause cancer.

### Analysis

Though the FAO and GAEC do not provide an answer to this question, the detrimental effects of toxic waste on all forms of life, from human to marine, to atmospheric, are evident from the various examples of the negative consequential results which toxic waste could have on the environment, as discussed by the MEST and the Ghana Standards Board. The official in MEST further approaches this question by adhering to the precautionary principle when he logically states that the substances which caused massive deterioration in the health of human beings in the Koko Affair will cause similar devastating effects in marine life. This clearly indicates that in the absence of proper management, the very existence of human lives and the whole ecological base are endangered and may suffer total destruction from being in contact with toxic waste. The EPA relies on Basel in this regard.

What might be needed for Ghana, however, might be for all officials dealing with these substances, such as those from MEST, EPA and Ghana Standards Board to share the information they possess on hazardous waste hazards with those who do not have any such knowledge.

Furthermore, the BCRC in Pretoria could also readily provide more detailed analysis to these offices in Ghana, based on scientific evidence, of how toxic waste affects the human health and environment. For example, the elucidations provided by Prof. Neil White<sup>3</sup> and Dr. Betty Anie<sup>4</sup> on these matters may be relevant here. During personal discussions held with each of them in July 2002, they explained that different forms of toxic waste affect life in various ways. They cite the cases of asbestos, lead, mercury and plutonium.

For instance, asbestos comes in very thin stripes (not in circles). These substances, when they come as by-products of industrial activity, are just so tiny in size that they cannot be perceived by the human eye. However, the slightest contact with them makes them inhalable. They thereupon come into contact with one's bronchules, an internal organ in the thorax. Upon such contact, the asbestos gets stuck to the lung, just as a needle gets stuck to an item. After many years, these substances become carcinogenous, and cause cancer.

In the case of lead and mercury, when inhaled over a period of time, they affect the nerves and cause physical paralysis, nervous breakdown, psychological and nervous disorders. Plutonium, upon being inhaled, also causes similar symptoms in the life of humans as well as animals and marine life.<sup>5</sup> The EPA refers to the Basel Convention as this Convention has internationally acceptable standards and explanations concerning the destruction of toxic waste on human, plant and marine life.

3: (a) What steps are you taking to promote free trade in your country?

Answers

FAO: NA

GAEC: NA

EPA : NA. This is more to do with the Ministry of Trade and Industry.

MEST: NA.

Ghana Standards Board: We are complying with all the WTO Agreements to promote trade. Furthermore, we are harmonizing our standards and adopting internal standards as much as possible. Ghana is signatory to the ACP-EU partnership agreement and also trades in the ECOWAS sub-region.

### Analysis

The trade-inclined Ghana Standards Board confirms Ghana's commitment to trade liberalization and its consequent trading arrangements with the WTO, EU and ECOWAS. On the other hand, the answers from the FAO, GAEC, EPA and MEST are in the negative, meaning that these offices are not aware of the measures which Ghana is implementing at national level, in conformity with its market liberalization obligations under the WTO. Understandably, these environmentally-oriented mechanisms may not possess adequate knowledge about free trade issues. Such knowledge may however be relevant at some stage to these offices, especially, as they need to ascertain whether ongoing free trade practices are being promoted in a sustainable manner. More light will be thrown on this point in 3 (b) below.

3(b): Does your country send participants to the WTO Training Institutes in Nairobi and Casablanca?

### Answers

FAO: NA.

GAEC: NA. The Ministry of Trade would be more equipped to provide this answer.

EPA: NA. This is more to do with the Ministry of Trade and Industry.

MEST: NA

Ghana Standards Board: Yes, Ghana sends participants to the WTO Training Institutes in Nairobi.

### Analysis

Whereas the trade-oriented Ghana Standards Board provide that this country is indeed sending participants to the WTO Institute, the answers from the EPA, GAEC, FAO and MEST are all non-committal. Once again, these responses go to establish the fact that the environmental mechanisms in Ghana are in no way aware of free trade practices, as well as the WTO Training curricula being given to certain developing countries, such as Ghana. However, for these environmental offices, such awareness is necessary, as "trade and environment issues now interact and increasingly collide".<sup>6</sup>

Furthermore, one proposal of this thesis requires the WTO Institute to include sustainable trade in toxic waste as part of the environmental issues arising in these trading activities and lessons. This would necessarily suggest that a participant to this Institute would bring home lessons which would be relevant not only to the Ghana Standards Board and Trade and Industry Ministry, but also, to the MEST, EPA and various NGOs and other environmental offices.

3 (c): What are past and present examples of the importation of hazardous waste from the first world and other countries into your country, in the course of free trade?

#### Answers

FAO: Not that I know of. However, Ghana imports some of these substances from Japan and China. Other examples of toxic waste imports, are obsolete pesticides which are imported under the aegis of the Kennedy Round 2-Japanese Government Project pertaining to Ghana. Here, Japan provides a list of supposedly cheap pesticides, which Ghana must accept. After the importation of such substances into the country, the season for their use is already over and there is a stockpile of these substances. These substances are cheap, but in reality, they are very costly as they affect the health of people and the environment. The Chinese also bring their own pesticides to Ghana. These pesticides are labelled in Chinese. From the viewpoint of the official at the FAO, such trends indicate the lax governmental controls of hazardous waste trade patterns in this country. Illegal imports of PCBs are also carried out from Côte d'Ivoire and Nigeria into Ghana.

GAEC: Most of the hazardous waste imported into Ghana are PCBs which are imported from the USA and other industrialized countries. These PCBs are used for the manufacture of hair pomade, skin cream for bleaching among women and in electrical transformers. However, in the case of electrical appliances, much more worthy substitutes are being used, it has been observed by the GAEC. GAEC does not specify what these worthy substitutes are. An inquiry has been sent to them regarding this pertinent point.

EPA: This is more to do with the Ministry of Trade and Industry.

MEST: NA

Ghana Standards Board: The past and present examples of importation of hazardous waste from first world into Ghana is the importation of refrigerators and freezers with chloro fluorocarbons which deplete the ozone layer.

### Analysis

From the information provided by the Ghana Standards Board and the FAO, it is evident that unsustainable free trade can cause dire health and environmental problems. The importation of toxic substances from China and Japan, as discussed by FAO above, raises the question of externality in economics, where financially “cheap” goods in the form of free trade become costly in the long-term, due to the negative effects that they actually have on the environment and health of a nation. This also goes to establish the fact that similar to the case involving Japan’s illegal shipments of medical waste to the Philippines, toxic waste trade does not just occur as a form of toxic imperialism, from the first to the third world. Even between third world countries, it occurs and the newly industrialized countries of the Far East also engage in some forms of dumping in other developing countries’ territories.<sup>7</sup> Such trade, from similar discussions held at the World Bank Country Office and further information from the FAO, in December 2002, also occurs when PCBs are illegally imported from the West African countries of Nigeria and Côte d’Ivoire into Ghana, for the manufacture of hair pomade and skin bleaching cream.

Ghana has also been importing toxic substances such as PCBs and CFC-produced refrigerators from industrialised countries. However, the current UNDP country programme, the Protocol End User Incentive Package GHA/01/G63, which aims to ensure a gradual phase-out of such imported products is then very timely as it seeks to eliminate the use and importation of refrigerators, mobile air conditioners and other devices which are manufactured with CFCs. The preventive principle could be seen as being practised hereby.<sup>8</sup>

Furthermore, from the findings to this question, it is obvious that Ghana’s economy greatly depends on the importation of crude petroleum oil. This contains hydrocarbons, which are in turn toxic substances. The petroleum is then reprocessed and refined. Other toxic substances such as sulphur, a highly flammable chemical, is added to the oil when being processed. The EPA has no knowledge of hazardous waste imports and believes that the Ministry of Trade and Industry would have more information on this matter. However, considering the fact that hazardous waste basically falls into the environmental realm and the fact that trade and environment are now cross-cutting issues, it seems reasonable that the EPA be enlightened by the Trading Ministry on instances involving the importation of these substances. This could be done through information sharing at

collaborative meetings amongst these offices by the Hazardous Pesticides Committee (which will include the Ministry of Trade, as indicated in Chapters 5.3.2, 5.6 and 6 ) and amongst relevant petroleum and other toxic waste trade importing companies, from time to time. The purpose of such meetings would be for experience-sharing, identification of problems being encountered in importing these substances, *inter-alia*.

3 (d): What are past and present examples of the exportation of hazardous waste from your country into the first world?

#### Answers

FAO: Not that I know of.

GAEC: Residual petroleum from certain industries such as the Tema Oil Refinery (TOR) and the Ghana Industrial Petroleum Company (GHAIP).

EPA: This is more to do with the Ministry of Trade and Industry.

MEST : NA.

Ghana Standards Board: None.

#### Analysis

It appears that Ghana also engages in some form of toxic waste exportation within the petroleum industry. The FAO is aware of many instances of toxic waste production for domestic use, such as recycled lead in car batteries and the production of cement, for use within the country's local companies in Accra, Tema, Takoradi and Kumasi. However, regarding the exportation of hazardous waste, the GAEC indicates that Ghana sends out residual fuel oil from the refining processes from industries such as TOR and GHAIP, to certain oil marketing companies in the USA, for use in furnaces, *inter-alia*. Such residual products contain toxic waste, notably sulphur, which is highly flammable. It is noteworthy that the Ghana Standards Boards which also deals with matters of exportation in Ghana, is not aware of this. A lot of information sharing with the Ghana Standards Boards is also recommended from these agencies in this regard, as this would ensure more transparency. The same applies to the EPA and MEST which have no knowledge of this matter. The means to accomplish this information-sharing objective is through meetings, as indicated in 3 (c).



4: (a) Does your country import and export hazardous waste from and into the countries of the continent and those with which it has entered into regional integration agreements?

Answers

FAO: Yes.

GAEC: Yes.

EPA: Ghana does not engage in hazardous waste import and export.

MEST : NA.

Ghana Standards Board: No.

Analysis

Though the FAO and GAEC confirm that Ghana engages in intra-African trade with certain other countries of the continent, the EPA and the Ghana Standards Board are not aware of any such forms of trade. The MEST does not have any information in this regard. From the foregoing, there is clearly a lack of co-ordination and collaboration between the various governmental agencies which deal with toxic waste trade. This problem could be rectified through a series of periodic meetings for more information-sharing and concerted efforts on the part of governmental ministries and various offices which deal with toxic waste trade regulation. Such an approach could also result in more efficiency when dealing with this problem, as already indicated. Given this current state of affairs in Ghana, this could be performed by EPA's Hazardous Chemicals Committee, whose mandate would be extended to include toxic waste regulations.

4 (b): If yes, on a scale of 1 to 5 (best to worst), how does this positively and negatively affect this country and its regional trading partners in the course of free trade?

Answers

FAO: Rating NA. To a very large extent, such trade negatively impacts Ghana. For example, such illicit trading in obsolete pesticides is carried across the borders between Ghana/Côte d'Ivoire, Nigeria to Ghana. This trend reflects the existing porous borders, inefficient border administration and lax laws in this country.

GAEC: Negatively; Rating NA.

EPA: NA.

MEST: NA.

Ghana Standards Board: NA.

### Analysis

Both FAO and the GAEC opined that intra-African trade in toxic waste detrimentally impacts the environment of Ghana and its neighbours. The FAO was noticeably more adamant in this regard. For the FAO, illegal waste trade, which highly reflects Ghana's lax environmental laws and porous borders, just negatively affects people's health and contaminates the environment. The EPA, MEST and the Ghana Standards Board are also not aware of any such forms of trade. Once again, through these collaborative meetings, proposed in 3(c) and 4(a), it may be worthwhile for these offices to be well-informed of exactly what transpires in reality when it comes to such issues. With this, there will be more transparency as they work together to regulate such trade.

5 (a) : Does your country have adequate means of treating hazardous waste in terms of recycling, reprocessing and final disposal ?

### Answers

FAO: No.

GAEC: No.

EPA: To some extent, yes. A few mechanisms exist for disposing of hazardous waste.

MEST : No.

Ghana Standards Board: Ghana does not have the means of treating hazardous waste. Even in cases of normal waste or effluent from factories, the following factories from the food sector are known to treat their waste: Pioneer Food Cannery, Nestle Ghana Limited and Cocoa Processing Company.

### Analysis

From these answers, it could be acknowledged that apart from a few mechanisms for hazardous waste treatment mainly in the food industry, the country generally does not seem to be adequately equipped in terms of treating hazardous waste.

5 (b): How do you dispose of various wastes, such as medical, agricultural, household, industrial and mining waste?

### Answers

FAO: Landfills.

GAEC: Landfills or Rubbish Dumps.

EPA: Reprocessing before final disposal is on a limited scale. For example, the Korle Lagoon restoration site in Accra serves this kind of purpose. Most companies and industries also pre-treat liquid waste before disposal into city drains. Medical waste which include dead body parts, placenta are incinerated for example in the Korle-Bu Teaching Hospital. Regarding medical wastes, needles, syringes and sharps are crushed and buried at land fill sites. Some agricultural waste is composted for use as organic fertilizers. Household waste is collected and sent to landfill sites by various waste management organisations. Industrial waste is managed at industrial levels through approved Environmental Management Plans by the EPA of Ghana. Mining waste is also managed by the same procedure as explained above.

MEST: Waste is disposed of through open air incineration, dumping, and landfilling. For medical wastes however, guidelines have been developed for their safe and generated efficient management. Implementation is what remains. An engineered landfill located at Kwabenya cannot be completed because of resistance from the residents of the area. The project was being funded by the British government and it would have addressed the problem of mounting waste by the 3 million residents of the city and its daily floating population of 500,000. Regarding mining waste, this is dealt with under the Environmental Assessment Regulations of 1999 L.I 1652. The Regulations incorporate the requirement for mining companies to post a reclamation bond. Implementation started two or three years ago. Seeking to reduce mine waste through the adoption of appropriate technologies is in the interest of these companies if they are to reduce their liabilities and so they are complying.

Ghana Standards Board: No proper system in Ghana for disposing wastes.

### Analysis

In the face of generally insufficient waste disposal mechanisms, it seems however that Ghana treats various categories of waste differently from each other. This is commendable, as different forms of waste require different forms of waste disposal and treatment. Nonetheless, the practice of using rubbish dumps for hazardous waste may not be a very useful one as elements of the waste can easily have an adverse impact on human health and the environment. Children for instance, in areas such as Nima and Korlegorno,

as well as other poverty-stricken neighbourhoods throughout Ghana, have been known to play on these rubbish dumps and stumbled across toxic material.

Unlike South Africa, Ghana does not have special incinerators to take care of medical waste and other respective special landfills to deal with respective forms of waste, such as agricultural and medical waste. Furthermore, it has not been indicated whether or not illegal trade in medical waste occurs, contrary to the situation that has been reported in the South African context. This information concerning medical waste in South Africa was obtained from the Ministry of Health during a discussion in Pretoria in April 2002. When it comes to medical waste, the MEST in Accra states the problem of lack of implementation of the medical guidelines for waste disposal. The absence of such enforcement and monitoring suggest that this waste may be disposed off unlawfully or by other means in reality, without the offenders having to account for their misdeeds.

The fact that the Kwabenya waste project could not be implemented because of public opposition, also means that in this country, there is some degree of public awareness regarding toxic waste issues.

It is also remarkable that in this country, mining companies are abiding by regulations which require them to reduce mining waste and use appropriate technologies for arriving at such reduction when engaging in their manufacturing processes. This practice is a clear illustration of an adherence to the preventive principle. This is also a significant improvement of Ghana's hazardous waste practices, at least, as far as the 1999 Tarkwa Mining incident is concerned. According to the MEST, in that case, inhabitants in the Western Regional town of Abekwasi lodged bitter complaints to the government for careless dumping of mining waste by the neighbouring Tarkwa mines into rivers and residential neighbourhoods in Abekwasi. The result of some of these acts were the pollution of these rivers and also, paralysis and other form of malignant ailments within certain citizens in large sectors of this town's populace.

5 (c): Are any of these categories of waste exported or imported for financial benefits and if yes, where do you send them and import them from?

### Answers

FAO: NA.

GAEC: No.

EPA: None of these categories of waste is exported or imported.

MEST: NA.

Ghana Standards Board: No.

### Analysis

Apart from the exportation of very minute quantities of petroleum by-products (which would qualify as industrial waste) to the US, Ghana mainly disposes of domestic, agricultural and medical waste locally, the offices indicate. This country could not actually be said to export toxic waste. This seems appropriate, as the exportation of these three categories of waste may be inconvenient and it is deemed more prudent and less cumbersome to treat them at home. This actually conforms to the stipulations of the Basel and Bamako Conventions that waste be treated as close as possible to its source of generation.<sup>9</sup>

However, regarding industrial waste and the waste from the batteries of electrical appliances and fluorescent tubes for instance, personal discussions with the UNDP-country office in December 2002 revealed that a waste stock exchange project might actually be timely, despite failed attempts to establish this project in the past. This project could collect used electrical appliances for treatment, recycling and export. Such waste trade, the UNDP informed, would be carried out between Ghana and other countries of the African region.

It is also commendable that some agricultural waste is composed into fertilizer, as indicated by one response in Question 5(b). This is similar to the waste practices and projects being organised by the Mazingira Institute for certain local communities in Kenya and also, similar projects of the UNDP in Zambia. If this process is carried out on a large scale and based on accurate environmental assessments then, under the auspices of NEPAD and intra-African integration, the fertilizer from this waste could be exported to other countries in the region. Similarly, household waste could be recycled among local communities for treatment and sale (for instance, used towels recycled and reproduced

into carpets), similar to ongoing practices among the Zabaleen community in Egypt.<sup>10</sup> With the recycled products, these could be exported at least, to countries of the sub-region for sale. All these projects could be for commercial purposes since such trade could effectively resolve the problem of unemployment and lack of income among the poor communities in Ghana. The free trade benefits of employment creation and income generation could come into play here.<sup>11</sup>

6: This question dwells on the various aspects of the laws on hazardous waste, from international and regional perspectives.

6(a): Has your country adopted the Basel Convention?

Answers

FAO: NA.

GAEC: NA

EPA: Ghana has not adopted the Basel Convention.

MEST: Ghana is in the process of doing this. The foreign ministry is preparing the instrument of accession for presidential assent.

Ghana Standards Board: Contact EPA.

6 (b): Has your country adopted the Bamako Convention?

Answers

FAO: NA.

GAEC: NA.

EPA: Ghana has not adopted the Bamako Convention.

MEST: Not yet, but the Department will work on that soon.

Ghana Standards Board: Contact EPA.

Analysis for 6(a) and 6(b)

Most of these offices are not aware of whether Ghana has adopted these Conventions. However, from all indications by the MEST, Ghana's Foreign Affairs Ministry is in the process of preparing the instrument of accession for presidential assent. The EPA also states that Ghana has not adopted the Basel and Bamako Conventions. With regard to the

Basel Convention, work is being carried out to enact a municipal law. By the time this thesis was completed, such accession to the Basel Convention was completed. However, the enactment of the municipal law is what remains.

Regarding Bamako, Ghana adopted the Convention in January 1991 together with other African states in Mali, Bamako. It is yet to ratify this Convention and consequently, to date, no municipal law has been enacted. In spite of this country's commitment to a total ban in toxic waste trade with OECD countries, there is also no law which reinforces this commitment, spells out penalties, *inter-alia*. However, if Ghana has already acceded to Basel, seeks to ratify the Basel Ban and is in the process of ratifying Bamako as discovered from the research inquiry from the Basel Convention website and personal discussions with these officials from MEST and EPA, then, this should timeously reflect in its municipal law. If Côte d'Ivoire enacted its municipal law in 1988 even before ratifying Bamako in 1994, then, these suggestions being made for Ghana are not far-fetched. Otherwise, these forms of ratification/accession and pious intentions become meaningless in reality. Illegal practices in toxic waste trade which run contrary to the principles of these conventions are then successfully carried out in practice.

Furthermore, the Basel Convention, with its Ban, is now somewhat similar to the Bamako Convention in its objectives of banning trade in these substances from the first to the third world. The question then becomes: Why adopt two conventions with similar objectives, as this may result in duplication and more financial burdens of having to maintain membership to these two Conventions, having to participate in various meetings organised by these two conventions, *inter-alia*? It might just have been better to stick to Bamako, ensure that it reflects in the current Ghanaian law and enter into environmentally-friendly agreements with any first world countries, using Article 11 of the Bamako Convention which may in very limited situations, permit such trade in lead for car batteries, and other forms of less toxic waste. Other highly toxic waste such as PCBs would be excluded in this regard.

On the other hand, since Basel and Bamako now have similar objectives in banning trade between OECD and non-OECD countries, and Ghana has membership to both Conventions, perhaps the municipal law in accordance with these Conventions should just be enacted and more finances be allocated to complying with the objectives of these

conventions. While banning all manner of toxic waste from the first world, when it comes to other forms of toxic waste such as lead scrape in car batteries, very limited exceptions based on scientific evidence could be made on a case by case basis, for their importation from other African countries.

6 (c): What are the various municipal laws of your country which have been enacted in accordance with these two mechanisms?

#### Answers

FAO: None. Laws are still in the process of being formulated at the national level. Check EPA for details.

GAEC: At the national level, Ghana's Pesticides Control and Management Act 528 (1996) regulates the manufacture, formulation and utilisation of pesticides. Check with EPA for more details as this is the main enforcement agency and administers these tasks in collaboration with other ministries.

EPA: None.

MEST : None.

Ghana Standards Board: Contact EPA.

#### Analysis

From the above, it is clear that unlike Law 88-651 of Côte d'Ivoire (1988) and the Environmental Protection Act of the Gambia<sup>12</sup>, Ghana, being in the process of ratifying the Bamako Convention as indicated in Question 6(b), lacks a specific municipal law which enforces its commitments to ban toxic waste imports. However, a series of fragmented and highly uncoordinated laws abound. Each of these laws regulate various dangerous chemicals, such as mercury, propane and kerosene. While a proposal for this fixed law is still being considered in Parliament, Ghana currently has a wide range of mechanisms which deal with the management of chemical substances.

Examples of these mechanisms are the Pesticides Management Act 528 which regulate substances such as defoliant, desiccant, wood preservatives and industrial as well as agro-chemicals, and aims to control, manage and regulate pesticides; The Petroleum Regulations (1959) which regulates the importation, shipping, landing and storage of petroleum; the Safety Petroleum Rules (1959), which regulate propane, butane, aviation



and motor spirit, highly aromatic spirits and alcohols of synthetic resin type, kerosene, gas, diesel and lubricating fuels, and controls marketing installation-layout, plant and equipment, as well as handling fire precautions and transportation; Regulations cap. 159, on the Importation of Plants, which covers disinfectant and fumigants, and regulates the importation of plants so as to prevent the introduction of pests and plant disease and the Explosives Regulations 1970 L.I. 666, which covers explosives and provides for all matters relating to the importation, transportation and use of explosives.

For more uniformity, it may be better to follow the example set by Côte d'Ivoire and the Gambia, enact one specific law with obligations, liability regimes and penalties and ensure that various organisations dealing with toxic waste regulation within the country, are very well acquainted with the various stipulations of this law.

6 (d): How is your country benefiting from the training programmes and workshops of the Basel Convention Regional Centres in Africa?

#### Answers

FAO: NA.

GAEC: Check with EPA.

EPA: Ghana has had a course on General Hazardous Waste Management for Middle Management, from 5 to 8 August, 2002.

MEST: Contact EPA.

Ghana Standards Board: Contact EPA.

#### Analysis

Apart from the EPA which only refers to the training course on General Hazardous Waste Management for Middle Management convened from 5 to 8 August, 2002 in Accra, Ghana, these offices make no references to any of BCRC's workshops. However, discussions at the BCRC in Pretoria also reveal that many of these workshops have been organised with officials from Ghana, participating in these sessions. The FAO, MEST and the GAEC, which work on these matters, should obviously be familiarised with the sort of lessons that these participants to the BCRC workshop are deriving therefrom. The same applies to the Ghana Standards Board, in view of the interaction between the

interrelating issues between trade and the environment, as well as how this ties in with toxic waste trade.

According to this information from the BCRC, participants to the BCRC workshops have taken home lessons concerning the practicalities involved in the management of toxic chemicals such as PCBs through their participation in the Nairobi Workshop, 17<sup>th</sup> October 2001. Additionally, the Pretoria Workshop on Technology Transfer for Focal and National Linkage Institutions' representatives in November 2001, *inter-alia*, exposed them to principles of hazardous waste and its management, and provided them with training and technology transfer methodologies and materials. From 8 to 12 January 2001, Ghana was also represented at the First Continental Conference for Africa on the Environmentally Sound Management of Hazardous Waste and its Prevention in Rabat, Morocco. From this important meeting, participants took home lessons including *inter-alia*, how Mauritius has acquired sophisticated technological efficiency in managing its landfill site at Mare Chicose and how this landfill site will be used for disposing of hazardous waste and managing it, not only at municipal level, but on a regional basis. Remarkably, this project is being *jointly implemented* by the Departments of Environmental Affairs and Local Government, the University of Mauritius and Industry. The project is also being carried out while paying heed to sustainable development and environmental considerations.<sup>13</sup>

To this, it may be suggested that such information should not be confined to the Regional Training Centre of the Basel Convention in Pretoria, but to all other divisions within Ghana's relevant ministries and offices which deal with toxic waste issues as well. Any participant who partakes in these sessions should also be made to give a detailed account in written form to the EPA, MEST, Environmental NGOs, Ministry of Trade and Industry, and other relevant governmental ministries on the advantages being gained in this regard. Thus, readily available data and records should easily discern whether or not participants from Ghana are benefiting from these programmes and through what means. Advisably, such records should be available at the BCRC office in Pretoria and these Ghanaian offices as well as other African countries' offices. The other participating countries could similarly also follow these patterns.

7: What is your country's attitude towards promoting the NEPAD?

### Answers

FAO: Positive.

GAEC: Positive. However, promoting free trade and regional integration do not necessarily suggest that we ought to import toxic substances into our territory.

EPA: NA. This office has not been following that.

MEST : Very active and positive.

Ghana Standards Board: NA.

### Analysis

Since most parties answered this question in the affirmative, it appears that Ghana is in favour of free trade agreements and regional integration. This stems from its support for the NEPAD, which is perhaps the principal and most up-to-date African mechanism for promoting these objectives of African integration. GAEC also cautions that a deeper intra-African trade and integration does not also mean that we should trade in dangerous substances and not be mindful of environmental norms. This office further advocated the need to avoid the kind of situation involved in the Nigerian Koko case where free trade led to the importation of PCBs, highly dangerous substances from Italy into Nigeria in 1988. As a member of the Commission of Enquiry which was set up to investigate into this case in Nigeria, the officer from GAEC got the chance to personally witness the sort of devastating impacts which free trade in toxic waste can have on one's environment, in the absence of due environmental caution.

It must be borne in mind that such a strong commitment to NEPAD and similar attitudes from the other two case study countries of this thesis as well as other African countries, could also enable Africa to speak with one voice and combat illegal shipments of toxic waste from first world countries into African countries, using the main objectives of the Bamako Convention. This kind of solidarity could actually act as a boost to the Basel ban decision. It could actually enable Africa to also possess a stronger foothold when participating in the WTO arrangements, including Article XX exceptions of the WTO Agreements<sup>14</sup> which allow these countries to reject any environmentally dangerous goods, on the grounds of national policy.

These lessons should be made readily available to the EPA and MEST then. This is because obviously, though the NEPAD touches on regional integration, the discussions in this thesis emphasise that environmental issues and sustainable development become intimately linked to free trade issues and could be tackled under regional integration as well. This should thus not be limited to trading offices.

8: (a) On a scale of 1 to 5 (best to worst), how would you rate the current law and policy in your country in terms of sufficiently addressing hazardous waste import and export issues?

#### Answers

FAO: 4.

GAEC: 3.

EPA: 4. This country needs a total ban on all forms of import and export of hazardous waste.

MEST: 5.

Ghana Standards Board: Contact EPA.

#### Analysis

It seems that the current law on toxic waste trade is not adequate in terms of regulating these matters. While there is no comment from the Ghana Standards Board, the FAO and the MEST opine that the current law is insufficient. For the GAEC, it is outmoded and from the perspective of the EPA, there is an urgent need for a municipal law which bans the importation of every form of hazardous waste, whether least toxic, less toxic or slightly toxic. So that contrary to offices in South Africa, such as its Environmental Affairs Department and Water Affairs Department, in Ghana, the economic benefits of toxic waste trade do not mean much in formulating a law to regulate this matter.

8 (b): How has your municipal law developed in this area?

#### Answer

FAO: NA.

GAEC: Check with EPA. One is more familiar with the Pesticides Management Control Act, Act 528, 1996, discussed above. I am aware that the EPA has submitted a proposal to

parliament for a municipal law, which will regulate toxic waste trade. Check EPA for details.

EPA: NA.

MEST: NA

Ghana Standards Board : Contact EPA.

### Analysis

Regarding the development of municipal law on hazardous waste, the MEST and EPA do not provide much information unlike in South Africa where the DEAT discusses the development of toxic waste laws in the pre-Thor Chemicals era and post-Thor Chemicals era, right up to the present day. For the EPA, its focus of work lies more within the realm of chemical management and does not provide any answers to this question.

Discussions at the BCRC in Pretoria in April 2002 however reveal that certain vital information on Ghana exists in this regard. For example, Ghana has always been environmentally aware of the potential hazards of importing toxic substances. Hence, the establishment of the Pesticides Control Act 1996 and many others, such as those cited in 6 (c). To some extent, one could say that such environmental awareness may not be such a recent issue in Ghana. This is evident from the information provided by the BCRC regarding some of Ghana's fragmented laws which date back to many decades in retrospect. These include the 1959 Petroleum Regulations, The Prevention and Control; of Pests and Diseases of Plants Act 17 (1965) and the Explosives Regulations L.I. 666 (1970).

However, with important international environmental developments such as the 1987 World Conference on Environment and Development, the Rio Conference of 1992 and more importantly, the WSSD of 2002, Ghana is now paying much more particular attention to the incorporation of environmental principles such as waste prevention and minimisation issues. The fact that a specific law on regulating toxic waste trade is still being deliberated on and should be ready soon, as indicated by the MEST, after Ghana's ratification of Basel and Bamako, also demonstrates the country's commitment to combating illegal trade in toxic waste in this regard. On the other hand, in comparison with other developing countries such as The Gambia and Côte d'Ivoire which enacted

their laws as far back as 1988, Ghana has not acted expeditiously in this regard. Like South Africa, Ghana needs to finalise its procedures for a law then.

8 (c): What are the areas in which the law effectively addresses hazardous waste trade and what are the areas in which it needs to be improved upon?

#### Answers

FAO: This country office is helping farmers to familiarise themselves on how to handle hazardous chemicals, during various agricultural practices. On the other hand, the Ghanaian government must seriously reflect on how to implement hazardous waste laws and how to translate their international commitments into reality, at the national level. For instance, how do we import chemicals from China and Japan, which are labelled in Chinese and Japanese languages? There is a lot of weak governmental control in this regard. The government must promote advertising, transporting, storage and labelling.

Regarding areas of improvement, the implementation of laws at the national level is one area which needs to be considered. The government, in collaboration with certain Anglophone countries of the African region, could emulate the Sahelian Harmonised Pesticide Registration Scheme of certain French West African countries. Under this scheme, the Sahelian countries combat the importation of toxic waste together, with the help of the FAO. The experts who work under this scheme are representatives of all nine Sahelian countries. They enforce a common regulation policy, that is, the Common Approval Scheme. Once the Committee approves of particular pesticides, then that means that such pesticides are approved in all countries and can then be imported or used in any of these countries. It is a cheaper means of dealing with the problem. Since 1976, this project has been contemplated and took a long time to be implemented. It is now functioning efficiently owing to the cooperative approach adopted by the member states to this scheme. One point to demonstrate its success is the fact that it has published a list of approved pesticides for easy reference when ascertaining whether or not to grant permission to import these substances. This information, obtained from the FAO country office in Accra in December 2002, is an example of how countries can collaborate to combat this problem.

GAEC: The government, aided by the UNDP-country office in Ghana, is in the process of formulating an Action Plan to control the importation of toxic substances on the

market. To this end, the two offices have collaboratively taken inventories of these substances throughout the country. The next step of this action will be to take an inventory of how much PCBs exist in the system. This will lead to the establishment of an Action Plan. Ghana has also requested funding from the international community to eliminate POPs. A task force has been established by a National Coordinating Team and is supposed to take about six months in order to be fully operational. Another area which the law effectively addresses is the management of POPs which are pesticides such as DDT and other toxic substances, regulated by the Ministry of Agriculture. The Ministry has taken countrywide inventories, but found no traces of these toxic substances. The only toxic substance not being regulated is furans. The importation and export of all other chemicals are being regulated by a permit scheme under the EPA.

EPA: The PIC system is particularly being effectively dealt with. Here, the EPA has implemented a UNEP-funded project, which is assessing various chemicals and hydrocarbons regarding their importation into developing countries. This project basically ensures that Ghana gives its prior informed consent before such products are imported into its territory. Concerning the areas necessitating improvement, there is the need for more funding to implement national laws and hire consultants. There is also the need for more collaboration between various governmental departments, which tackle various aspects of toxic waste management, including importation and exportation issues.

MEST : NA.

Ghana Standards Board : Contact EPA.

### Analysis

Though collaborative efforts between various ministries dealing with various aspects of toxic waste trade laws do not seem to be strong enough, the invaluable assistance of the UNDP and FAO country offices must not be overlooked. Within their respective capacities, these two offices, through collaborating with the EPA, train farmers on the safe management and handling of pesticide wastes and chemicals, as illustrated above. This is particularly important as it significantly contributes to resolving the problem of low public awareness which, as indicated in Chapter 5, is one of the main factors for indiscriminate toxic waste imports.

The FAO brilliantly explains the Sahelian Mechanism which demonstrates how co-operation and concerted efforts can effectively combat illicit trade in toxic waste. This

could be adopted for Ghana and certain English-speaking African countries of the region. Perhaps, this could be appropriately organised by the BCRC. Alternatively, it could be carried out within the African regional mechanisms and finally, extend to the whole continent. Such mechanisms are in conformity with the need for cooperation in tackling environmental issues which has often been recommended by declarations such as those of the Stockholm, Rio and WSSD meetings, *inter-alia*, which require more collaborative and forged partnerships for a more effective way of tackling environmental issues.<sup>15</sup> Though these principles require co-operation at the global level, it could be asserted that given the extraterritorial effects of hazardous waste mismanagement and trade, co-operation at the regional level is also commendable.

With respect to collaboration, UNDP's current assistance to the EPA to formulate a Plan of Action on how to eliminate PCBs<sup>16</sup> demonstrates the principle of common but differentiated responsibility<sup>17</sup> when translated into concrete action can help a developing country which needs funding to overcome its problems.

The Ministry of Agriculture is also working on the elimination of POPs including DDT, as indicated. Such exercises must be carried out with more effective collaboration with the EPA and MEST who will thereby become more familiar with the strengths and weaknesses of these laws.

8 (d): Are there enough penalties for those who contravene the current regulations on hazardous waste importation and exportation into and from your country, and how could this be strengthened?

Answers

FAO: No.

GAEC: Not really. This is because we still have a great deal of illegal trade in toxic waste into Ghana. PCBs, as indicated earlier, are being imported and women using them for the manufacture of pomade. Unless such practices are terminated, the existing laws cannot really be perceived to be effective.

EPA: No.

MEST : NA.

Ghana Standards Board : Contact EPA.



### Analysis

From these discussions, it becomes clear that the existing laws do not have sufficient penalties to levy to offenders. The GAEC, as already indicated, cites instances of persistent trade at the various Ghanaian borders and reasoned that such trade is being made possible in the absence of harsh punitive measures. The Ghana Standards Board believes that the EPA is more competent to discuss this issue. For the EPA, unless a strict municipal law with fines is enacted to ban such waste imports and exports, it may still be possible to conduct such trade illegally. To this, it must be added that such fines be exorbitant and long imprisonment terms be an integral part of such penalties. This is because these matters affect people's lives and the ecological system as a whole, and offenders must not simply pay, since these offenders may be wealthy companies who may encounter no problem(s) paying these fines and may then repeat the same offences time and again. Such lessons should also be shared with the MEST in the administration of its legal tasks.

8 e (i): Regarding the implementation of these laws, do the various Departments and Organizations which deal with hazardous waste regulations in your country work in close collaboration to deal with this issue?

### Answers

FAO: No.

GAEC: Currently, the UNDP country office in Accra and Ghana's EPA work together in implementing the provisions of the Pesticides Control Act 528 (1996) by assisting the EPA to formulate an Action Plan to combat illegal trade in Ghana. This Plan is still in the initial stages (see 8 (c) above, on the information provided by the GAEC, regarding this collaboration), but is expected to be fully operational within the next six months.

EPA: No.

MEST: NA.

Ghana Standards Board : Contact EPA.

### Analysis

From the perspectives of the EPA and the FAO, collaboration between the ministries and various offices on waste trade management is at a low ebb. The MEST and the Ghana

Standards Board remain non-committal in this regard. However, GAEC, as already mentioned, provides that a great deal of collaboration exists between the international offices such as FAO and UNDP in the country on the one hand, and the government offices on the other. To ensure more collaboration, it may be advisable for government to require that more meetings be convened amongst the FAO and UNDP country offices, GAEC, EPA, MEST and Ghana Standards Board, Friends of the Earth, for experience sharing, identification of problems on toxic waste trade practices and regulation in the country, and how these problems can be resolved collaboratively. In this regard, the proposed model law in this thesis regulating toxic waste trade issues should also have a stipulation which would exhort the Minister of Environmental Affairs to ensure that such meetings be held every once in a while. This could be convened, for instance, once in every two months with a feedback of the results of such meetings provided to respective ministers and the government.

8 (c)(ii): What, if any, are the other problems which the regulatory authorities encounter in the management of hazardous waste trade and how can they be resolved?

#### Answers

FAO: This office is supposed to collaborate with the EPA and various other ministries to implement the guidelines which the FAO formulates to ensure that pesticide dealers are registered under the National Committee. The task of this Committee is to ensure that each registered person applies for the necessary approval of the chemicals he/she uses. However, owing to the dire lack of funds in Ghana, such a committee is non-existent, and such collaboration becomes meaningless.

GAEC: The main obstacle here is the lack of adequate funding to hire officials to work on these matters.

EPA: Lack of collaboration, lack of adequate funding, persistent illegal trade in these substances, lack of education on the part of the general public and sometimes, lack of adequate attention being given by the public to these matters.

MEST: NA.

Ghana Standards Board : Contact EPA.

### Analysis

In the absence of any answers from the MEST and Ghana Standards Board, the answers from the FAO, GAEC and EPA apparently reveal that the main challenge faced by the regulatory authorities of toxic waste trade is the insufficient funding. Other problems are the lack of education on the part of the general public and lack of adequate staff to work on these matters. This leads people to import all manner of dangerous substances. To this problem, the solution may be to organise workshops, seminars, symposia, debates, *inter-alia*, to illuminate the general public on the dangers of importing these substances, as part of the many topical issues which are currently discussed in Ghana's media programmes.

The question of funding is being prioritised as the main obstacle, because without this, workshops and seminars cannot be successfully carried out. Officials to work in this field may not be adequately paid and would not succeed in making these issues known to the public. The successful resolution of all other problems in this sphere is thus contingent on the availability of funds, which is the first and foremost obstacle to overcome. A serious point then, is to reflect on how to derive enough income for these activities. A projected budget could be presented to the government in this regard, so that it prioritises such issues and provides financial resources in this regard. A series of internships/traineeships for national service personnel (who are often not paid much money) and even unpaid internships may also be appropriate in this regard. This could help resolve the problem of acute staffing shortages in this area.

9: How does one verify whether a substance being imported into your country is really hazardous waste, in order to ensure that on the one hand, the laws of your country are strict enough not to import hazardous substances which can actually be environmentally destructive, but on the other hand, that there is no disguised protectionism/discrimination, and substances which are actually not harmful are not classified as toxic, simply because they are being imported from another country?

### Answers

FAO: There should be the implementation of national mechanisms which comply with international standards to conduct the necessary tests. The outcome of these tests should be made known to the public.

GAEC: Sufficient tests are carried out in this office, in accordance with internationally acceptable standards .

EPA: The EPA-Ghana, verifies all documents in relation to the import of all chemicals into the country. Permits are given for the clearance of such goods, in collaboration with Customs Excise and Preventive Service. When not sure they communicate with the Agency for clearance.

MEST: The Ghana Standards Board and the GAEC have been carrying out tests on samples submitted by the EPA prior to the issuance of clearing permits to importers.

Ghana Standards Board: This office conducts tests in its chemical laboratories to ascertain whether products samples received from EPA are hazardous, toxic and so on.

### Analysis

Generally, we observe here that although the FAO, GAEC and EPA do not specify which international measures need to be adopted, they advocate the use of international standards, in order to strike a balance between protectionism and unsustainable toxic waste trade, thereby arriving at environmentally sustainable trade. Such international standards, from the perspective of this thesis, would include the Basel and the WHO Guidelines. The Ghana Standards Board, GAEC and the MEST confirm that the Board and GAEC have sufficient tests of ascertaining the toxicity of a product. They submit the results of such tests to the EPA. So the trade and environment balance is hereby maintained.

In this vein, one might also advocate publishing a list of toxic substances such as PCBs which are banned outright from importation and exportation and those which may be legally imported/exported under very limited exceptional circumstances. These exemptions could be attached as an Annex to the model law. Prior to their attachment as Annexes to these laws, this list would be made available to UNEP, WTO, WHO and FAO Panels, to ensure that there is transparency.

10: Which other countries, especially developing ones, could be cited as success stories in the implementation of legislation which resolves hazardous waste trade issues, and how could such lessons be modified to suit the case of your country in its hazardous waste trade?

### Answers

FAO: NA.

GAEC: NA.

EPA: NA.

MEST: Nigeria was the first country to pass a law dealing directly with the subject but I do not know how its implementation and enforcement has fared so far.

Ghana Standards Board: India is known to be a good example of a developing country with success stories in implementation of legislation, which resolves hazardous waste. Ghana needs finances to build human and structural capacity to emulate examples from such a country which treats its waste.

### Analysis

In Ghana, the MEST recommend Nigeria as the first country to have passed a law on toxic waste trade, but since nothing is known about the implementation, enforcement and successes in this regard, it may not suffice to follow it. On the other hand, the fact that a fixed municipal law has been enacted in this regard, makes this commendable. The Ghana Standards Board also recommends India as a success story. However, regarding incidents such as the Dow Chemicals fiasco in Bhopal which occurred as far back as 1984 and still negatively affects lives in India up till now, the toxic waste laws of this country may not be so efficient and need to be re-examined before deciding on which positive lessons one could borrow.<sup>18</sup>

Apart from Nigeria and India, the remaining offices make no recommendations are made for the toxic waste trade laws of any other African countries to be learn from. However, one could, for example, also propose countries such as Namibia which has successfully banned toxic waste imports from the first world time and again, and is also the first country in the world to include environmental protection as a human right in its constitution, as indicated in Chapter 5.3.1 (a), especially, at fn. 87 therein.

From the EPA's viewpoint though, developing countries generally have a long way to go in these matters and are not as fortunate as first world countries who are financially endowed and have thus moved ahead of us. However, if this funding problem which lies

at the apex of the challenges posed is resolved, then more education and staff training, *inter-alia*, can be effectively carried out. Then, we can make some progress in this vein.

## **(B) SOUTH AFRICA**

1: What would you define hazardous waste to be, as distinguished from other kinds of waste and what are its constituent elements?

### Answers

DEAT: The definition of hazardous waste on paper is from too academic a perspective and has no practical implications. It is defined from an environmental health standpoint and does not take the economic factor into consideration. This definition does not include the fact that waste can be a valuable item of commerce into consideration.

DWAF: There is no standard definition. One product deemed to be waste can be used to manufacture another item which is worthy of use.

WESWC: Usually liquid or solid, hazardous waste can also be airborne in the form of persistent organic pollutants. Hazardous waste poses direct threats to human health and ecosystems as opposed to the cumulative impacts of many other types of waste. The constituent elements of hazardous waste are unstable chemical compounds, radioactivity or explosive substances, strong acid and alkaline solutions, solvents, inflammable liquids like petrol and so on.

Bowman: Any substance which has the potential, even in low concentrations, to significantly increase the risk of human health or the environment. As a result of this, when any substance is contaminated by hazardous waste, it can cause a great deal of harm.

APD/DEAT: NA.

BCRC, Pretoria: The definition of hazardous waste differs from country to country because what is deemed to be waste in one country is not waste in another country. Let us take for example, an agreement between Ghana and South Africa to ship waste from the territory of the former to that of the latter, via Ethiopia. Supposing the waste being shipped as per the terms of this agreement, is non-hazardous in Ghana, but is hazardous in Ethiopia and non-hazardous in South Africa. There will obviously be problems with Ethiopia agreeing to permit these goods to transit through its territory.

DTI: NA.

GEM: Anything that is hazardous to life (all life) in small doses , for example, dioxins, the size of a pea can give 100 000 people cancer. This would also include all chemicals that have not been adequately tested for toxicity and cross toxicity, that is, how they interact with each other.

EJNF: NA

UCT/ChemEng: NA

CSIR: Not Sure.

Groundwatch: The Basel Convention/UN definitions of hazardous waste is used in South Africa.

### Analysis

From these answers, it appears that while some of the mechanisms/offices which work on toxic waste issues are unsure of an exact definition of hazardous waste and what it comprises, for offices such as the DEAT and DWAF, there is a definition of toxic waste. However, any attempts at such definition should also consider the economic value of such waste. In this respect, the DEAT for example, asserts that waste is waste to the generator and resource material to the receiver. For example, paper is waste according to the one who has no use for it, but to the receiver, it could be put to good use. For the DWAF paper can be waste and used in the manufacture of coal. Therefore, one must also have an economic way of defining waste, and that is from the trade perspective. From the perspectives of some other organisations such as the WESWC, GEM and Bowman, hazardous waste is defined with regard to the inherent toxicity which it possesses and the harm it can cause to human, plant, animal and marine life. GEM draws an analogy between the minutest molecule of toxic waste, the size of a pea and the devastating, long-term effects which it can have on human and environmental health. The health factor is prioritised here and is stressed by Groundwatch which adds that South Africa adheres to international guidelines such as UNEP's Basel Convention in its definition. Depending on the level of toxicity, the definition of waste also differs from country to country. As pinpointed in this thesis, within the context of NEPAD, it may be prudent for the definitional terms of toxic waste provided by these three case study countries (and those of the continent for that matter) to correspond with each other so that such trade could also be carried out more smoothly and in a more uniformed manner.

2: How does hazardous waste specifically affect all aspects of the environmental, human, marine and atmospheric health of a country?

#### Answers

DEAT: In the absence of proper management, hazardous waste can destroy and pollute all forms of human, marine and atmospheric health of a nation.

DWAF: The substances in Table 6.1 of the SABS CODE 0228, p6-6 of the Department of Water Affairs and Forestry's *Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste* are not necessarily toxic, but have a bad effect on the environment. Classes 1 and 7 of the substances in the Code are highly dangerous and are prohibited. Peroxide can be diluted and when the gases are heated, fluoride, solids and other substances are produced. There is some way to treat them, and remove their danger.

WESWC: Hazardous waste typically has the potential to impact on a much greater area than where it is specifically located. Uncontainerized, it is likely to spread through air and water systems - poisoning a variety of life forms.

Bowman: Do not know.

APD/DEAT: Certain forms of hazardous wastes such as medical and industrial wastes pose a great threat to environmental and human health. The treatment of medical waste includes having to dispose of syringes, plastics, bandages and so on. When incinerated, these substances produce chlorine. Upon reacting at certain temperatures, they become toxins. If dumped in a landfill, they do not cause air pollution. It is only when they contain methane, which is a green house gas, that is when this gas will seep through the soil. Otherwise, generally, it is only when waste is landfilled that it will begin to rot and seep through the soil, until the bacteria is produced. There is a high possibility that methane can catch fire as it is hazardous and a greenhouse gas.

BCRC, Pretoria: NA.

DTI: NA.

GEM: Hazardous wastes have numerous negative effects. They are often bio-accumulative, mutagenic, disperse widely, affect hormones, affect reproduction, alter fertility and give rise to a wide range of cancers.

EJNF: NA



UCT/ChemEng: The kinds of waste are very important, since they vary in degrees of risk and danger, for example. Lead for example, is known to hinder intellectual development in children.

CSIR: Not Sure.

Groundwatch: It has a hugely negative effect, especially if it is stockpiled for long periods or is incorrectly disposed of (illegal dumping) or treated in an environmentally unsustainable/polluting manner, for example, using combustion technology. Problems can also arise when it is being transported, for example, it results in accidental spills.

When being stored for example, accidental explosions, spills, leaks could also occur.

Hazardous waste can pollute the soil, groundwater, air, crops, food and drinking water, causing short-term and long-term damage to animals, humans and ecosystems.

### Analysis

Though a number of offices remain non-committal, the DEAT, DWAF and APD/DEAT stress that some forms of hazardous waste may not adversely affect human health and the environment, and become dangerous only when uncontrolled. Such forms of hazardous waste, if only they do not contain highly flammable substances such as methane, may not be dangerous. However, the absence of proper treatment of otherwise less harmful toxic waste could also cause a great deal of harm. Furthermore, the scientific explanation provided by the UCT Chemical Engineering Department also stresses that the harmful effects of waste are actually dependent on the kinds of waste in a given situation. For example, this Department highlighted that a substance such as lead which is used in the manufacture of paints and pipes, is highly dangerous to human health as it causes intellectual impairment in human beings. From this viewpoint, this Department further indicated that the construction of pipes in the old Roman Empire is said to have hindered the Empire's citizens' intellectual capabilities considerably. Similar symptoms occurred in children within the Cape Town neighbourhood of Woodstock when older houses were constructed with paint which was high in its lead content, the Department further explained. With time, as the houses became older and the paint fell off them, people inhaled them. In addition to this, the pipes were also made of lead. Hence, a close contact with toxic waste and its respiration thereof, can also damage one's intellectual faculties.

The WESW, EJNF, GEM and Groundwatch simply provide the inherent dangers which hazardous waste cause, without making any references to uncontrolled management.

From this point of view, such waste is just very harmful. From the viewpoint of Groundwatch, even the slightest form of mismanagement which occurs at any point when handling hazardous waste can indeed cause a great deal of damage to human life and the ecosystem as a whole. One could then concede that the necessity for suitably qualified personnel to deal with these matters must not be underestimated. The contrary could result in the 1992 Russian towns of Cheliabinsk and Orekhovo-Zuevo scenario. Here, inexperienced people in both towns mishandled waste and thereby, caused a series of malignant ailments amongst large sectors of the populace.<sup>19</sup>

3: (a) What steps are you taking to promote free trade in your country?

Answers

DEAT: NA

DWAF: NA

WESWC: NA

Bowman: Do not know

APD/DEAT: NA.

BCRC, Pretoria: NA. This office deals more with training and capacity building, as far as the national implementation of the Basel Convention in English speaking African countries is concerned.

DTI: South Africa now complies with free trade laws, unlike in past times when it was not a party to the GATT. WTO exceptions are very important when considering the issue of hazardous waste importation, as free trade does not necessarily suggest exporting whatever goods at all to another's territory. The WTO however seems to be one-sided, and geared towards the interest of developed countries. It has come to destroy LDC interests at the benefit of the first world.

DTI has to comply with DEAT and issues permits only when the latter has approved that shipments of hazardous waste be carried out. Hence, DEAT is the controlling arm of this issue and not DTI. This explains why DTI depends purely on the recommendations of the DEAT when it comes to hazardous waste importation.

GEM: The government greatly welcomes anyone who believes in free trade.

EJNF: NA

UCT/ChemEng: NA.

CSIR: Not Sure.

Groundwork: Groundwork promotes fair trade, not necessarily free trade. We do this through our corporate accountability campaign which is linked up with international organisations such as Friends of the Earth International, Greenpeace, Corporate Europe Observatory, Third World Network, and Earthrights International. In relation to the trade in hazardous waste we are definitely not in favour of a free for all movement of hazardous waste for so-called "economic benefits"!

### Analysis

It seems that most of the offices dealing with toxic waste trade issues are more environmentally inclined and unaware of free trading practices, as advocated by the WTO. These offices have a general idea that South Africa is now a proponent of trade liberalisation though. However, the DTI also interestingly refers to the DEAT as the controlling arm of the whole matter. This is quite in order, as the responsibility for assessing the environmental hazards of a product should fall to the environmental ministry. It may not suffice for DTI to permit the importation of substances just for the sake of advancing a free market strategy. The only important factor is to ensure that there is effective co-operation between these two ministries when such assessments are being carried out, for the same reasons of the gradually inextricable link trade and environment. In Ghana where the Standards Board and GAEC carry out such environmental assessments and then hand over the results to the EPA, this could also be done in strict collaboration with the Ministry of Trade and Industry. Groundwork is in favour of free trade, but believes that once trade in hazardous waste begins, trade is then not fair. This NGO is obviously strongly against trade in toxic waste, whether by regulation or other means.

3(b): Does your country send participants to the WTO Training Institutes in Nairobi and Casablanca?

### Answers

DEAT: NA

DWAF: NA

WESWC: NA

Bowman: Do not know

APD/DEAT: NA.

BCRC, Pretoria: NA.

DTI: NA.

GEM: We assume so.

EJNF: NA

UCT/ChemEng: NA.

CSIR: Not Sure.

Groundwatch: NA.

### Analysis

Not much is known about the WTO Training Institutes in Nairobi and Casablanca. Groundwatch, which is also unaware of these trends, stated emphatically that as an organisation, it is highly critical of the WTO and World Bank policies, particularly in relation to developing countries. It is hereby recommended that participants to these training sessions readily share information on trade and environmental issues, and how they touch on toxic waste, with these offices. This could be done through the meetings of the Hazardous Pesticides Committee.<sup>20</sup>

3(c): What are past and present examples of the importation of hazardous waste from the first world and other countries into your country, in the course of free trade?

### Answers

DEAT: From the first world, Annex 9 list B wastes are being imported here from the SADC countries. These can be recycled. From SADC, we do not and cannot import Annex 8 list A wastes because the wastes in this group are highly dangerous, for example, PCBs.

DWAF: NA. Check with DTI and DEAT.

WESWC: Thor Chemicals fiasco in Kwa-Zulu Natal.

Bowman: Do not know.

APD/DEAT: NA.

BCRC, Pretoria: NA.

DTI: NA. Check with DEAT.

GEM: In the mid-1990s, there were earlier attempts to ship Cupric Arsenite from Europe to South Africa. There were also attempts to import waste from Australia here sometime back. The Group for Environmental Monitoring discovered this. However, the

government said that these substances were for analysis and not treatment. Otherwise, we would have trade. These substances were actually plutonium, but there had been a change in the name. There is also the Thor chemicals incident.

EJNF: NA

UCT/ChemEng: Engine oil. It is important to note that even in its unused state, engine oil can be dangerous as it contains sulphur. The same applies to diesel and crude oil, for instance, the type South Africa purchases from the Arab world. Our refineries then have to extract the sulphur from it. This is a costly venture.

CSIR: Not Sure.

Groundwatch: The most notorious example is the mercury waste imported by Thor Chemicals for recycling purposes. The recycling never took place and the waste is still stockpiled at the Thor plant in Cato Ridge. This mercury waste has contaminated ground water, soil and a stream nearby, as well as led to the death of some workers. Furthermore, in the 1990s a company called Peacock Bay attempted to import hazardous waste into South Africa but this was fortunately halted.

#### Analysis

It is evident that some degree of toxic waste trade occurs between South Africa and her neighbouring countries of the sub-region, Australia, the Arab and first world. The DEAT explained that the imported substances into this country are pollutants and if they cross borders, they can harm the environments of neighbouring countries such as Lesotho, Namibia and other neighbouring countries of the region. The DEAT therefore makes use of preventive measures, which are necessary here, to ensure that no environmental harm is caused to this country or to its neighbours. The NGOs are more familiar with the Thor Chemicals fiasco and of further aborted attempts to send illegal toxic waste to South Africa from Australia in the 1990s. Even unused engine oil can be toxic owing to the highly hazardous sulphur which it contains, the DEAT indicates. However, no mention was made of lead, which is imported by the Johannesburg-based Fry's metals, a company which recycles and produces batteries. These substances are imported for recycling and manufacture of new car batteries, and their sale to the domestic market as well as other African countries.

3 (d): What are past and present examples of the exportation of hazardous waste from your country into the first world?

### Answers

DEAT: NA.

DWAF: NA. Check with DTI and DEAT.

WESWC: Do not know - this sort of trade is typically kept low key and away from the public eye.

Bowman: Do not know.

APD/DEAT: NA.

BCRC, Pretoria: NA.

DTI: NA. Check DEAT.

GEM: NA. If there is any being imported, it is in the guise of "recycling" a spurious term, as it would be cheaper to recycle at source. The information on this is limited, but it would result in the greatest harm possible.

EJNF: NA.

UCT/ChemEng: NA.

CSIR: Not Sure.

Groundwatch: This information is available from DEAT.

### Analysis

In general, the offices working on toxic waste issues do not happen to know much about the kind of waste being exported from South Africa and into which countries. Since this is their field of operation, it would be advisable that they become aware of every single form of toxic waste which is being exported. This actually ensures transparency. It also enables all these agencies to work together to detect prospective illegal shipments. Where such imports occur, they inform one another and combat such unlawful acts together. This also creates a situation where all these agencies can work together for a more efficient functioning of a law on toxic trade.

However, one NGO, GEM, specifically states that the fact some forms of toxic waste may be recycled and not imported for final disposal, should not be used as a subtle means of importing toxic waste into South Africa, because whether for final disposal or recycling, toxic waste is toxic waste.

UCT's Chemical Engineering Department proposed the following areas in which some forms of hazardous waste could be exported from South Africa into the manufacturing companies in the first world for reprocessing. Thereafter, such waste could then be sent back to South Africa for re-importation and sale: Rechargeable batteries, cell phones, medical appliances and other applications being consumer goods in general.

Concerning rechargeable batteries, about a third of these substances contain cadmium, a highly dangerous substance. Nickel is another constituent element, although it is less dangerous. The other constituent element of these batteries is lithium, which is quite valuable and not as hazardous as nickel and cadmium. However, when all these substances are combined in a given battery, they become highly toxic.

At the moment, rechargeable batteries are poorly collected for recycling and re-use in South Africa, the Department indicated. However, it is noteworthy that a low degree of collection has already begun. It is important that once these batteries have been used and outlived their 10 year life-span and 300 cycle period, they must be recycled. There is no recycling plant for these substances in this country, so the current collection is being done on an ad-hoc basis. This necessitates a better form of management. Perhaps, South Africa needs a recycling plant for these substances in this country. However, this is too costly, given the high degrees of batteries which one local plant requires. The global volumes are normally high. Hence, maybe this country should just have a fixed system of collecting these items every year and then sending them to France for reprocessing and re-importation, as we are currently practising.

On the recommendation of the Department, discussions were held with UNIROB Batteries and Battery Terminal, both of which are located in Cape Town and have begun collecting such batteries, albeit on a low scale. Lack of adequate funding and governmental support have prevented this project from being fully operational. One would suggest that if this system of collection and management begin here in South Africa and the used batteries sent from here to France for recycling and re-importation, it may be appropriate for a start. With time, such reprocessing and recycling could be carried out here and even batteries from Ghana and some other African countries treated here. It must be cautioned though that environmental evaluations be carried out before proceeding with such a project.

The Department further discussed the Efficient Lighting Initiative. This initiative aims at recycling the mercury utilised in fluorescent tubes. Fluorescent tubes are currently being dumped on normal disposal sites. Some of these sites lack impermeable layers at the bottom. With this, there is the likelihood of mercury seeping through the ground and adversely affecting human health and the surrounding environment. Similar to the case of UNIROS and Battery Terminal, the officials who champion this initiative have also embarked on a process of collection and management of these fluorescent tubes. However, they still have a long way to go, since they need more funding and governmental support. The DWAF in South Africa is also currently trying to find ways of sorting out the problem of recycling/treating mercury which is the main substance contained in these bulbs. The Department could perhaps collaborate with such companies in administering out these tasks.

Yet another initiative highlighted by the UCT's Chemical Engineering Company concerns the recycling of used bulbs. The BONESA Company deals with this initiative. BONESA is trying to ascertain how it can establish a local plant for reprocessing and recycling these items, or collecting the used bulbs and sending them back to their producers for reprocessing and re-use in new bulbs. Once again, environmental evaluations are recommended here.

4: (a) Does your country import and export hazardous waste from and into the countries of the continent and those with which it has entered into regional integration agreements?

Answers

DEAT: Yes.

DWAF: NA

WESWC: Do not know.

Bowman: Yes.

APD/DEAT: NA

BCRC, Pretoria: NA.

DTI: Yes.

GEM: Not aware of this. This was banned after a campaign of Earthlife Africa about eight years ago.



EJNF: Yes.

UCT/ChemEng: Yes.

CSIR: Not Sure.

Groundwatch: As far as I know we do not export hazardous waste to other African countries, but only import from them. This is done in terms of Basel regional agreements.

#### Analysis

Though some of the offices are not aware of whether South Africa trades with other African countries in toxic waste, it is obvious that such activity occurs. An example is the Fry's Metals importation of lead scrape for recycling in car batteries from Nigeria<sup>21</sup>, and also the case of importation of Annex 9 List B substances from the SADC countries. In the opinion of Groundwatch, this country imports toxic waste from African countries and does not export toxic waste into other African countries. It may be suggested that such trends could be modified.<sup>22</sup>

4(b): If yes, on a scale of 1 to 5 (best to worst), how does this positively and negatively affect this country and its regional trading partners in the course of free trade?

#### Answers

DEAT: 1.

This Department conceded that waste trade from SADC countries does not negatively affect South Africa and must therefore be encouraged. Furthermore, as the DEAT is practising good environmental management ranging from polluter pays to good stewardship and all the sound environmental principles that one can think about, then such trade can be pursued. The importation of hazardous waste from other African countries however could pose a big problem in South Africa because some of these countries cannot distinguish between Annex 8 and 9 wastes, the Department observed. Thus, what is non-hazardous waste in South Africa may be hazardous in some of these countries, and vice versa. For these countries, once waste is not domestic waste, it is hazardous and must be banned according to the principles enshrined in the Bamako Convention. However, in Basel, there is a fine distinction between hazardous and domestic waste, types of hazardous waste, then radioactive waste, for example.

DWAF: NA.

WESWC: Do not know

Bowman: Do not know.

APD/DEAT: NA.

BCRC, Pretoria: 1. Even within the context of hazardous waste imports into South Africa, free trade is very appropriate between South Africa and SADC. For example, there is an acute shortage of lead scrape batteries in South Africa. If lead scrape is imported from countries such as Botswana and Lesotho, it could be recycled and put to effective use in this country and exported back as well. Linkage institutions must therefore be established in these other countries.

DTI: 5. Such trade negatively impacts human health and the environment. In light of such trends, South Africa simply needs to protect its industries and market from foreign competition. Hence, the best policy would be to protect our industries, reject foreign toxic wastes and all other goods for that matter.

GEM: NA. However, it must be emphasised that if yes, the effect of such importation would undoubtedly be 5.

EJNF: 5. Negatively. It is unfortunate that South Africa is powerful and should be used as an entry for importing certain waste substances from SADC and other developing countries, when it comes to trade in Africa in these substances. Despite the existence of the Bamako Convention, free trade in other hazardous substances should also be banned from other African countries into South Africa.

UCT/ChemEng: Yes. Evaluation: NA. In terms of what South Africa is exporting/purports to export in the future, lubricating oil/engine oil in motor vehicles could be cited as a case in point. For every ten to twenty kilometres that a vehicle moves, the engine oil has to be changed. South Africa imports this used collected oil from Zimbabwe and other SADC countries. It reprocesses this substance and exports it back to Zimbabwe and other SADC countries. The principle here is for these countries to collect the oil again after use, and send it back to South Africa for recycling. To this end, the manufacturers in South Africa formed a Foundation to encourage the principle of managing and recycling used oil in SADC.

In the past, these countries to bring such substances back to South Africa for re-use, as this country is more adequately equipped in terms of technological know-how to treat these substances. However, the government refused this, on the grounds that this engine oil is now used, consists not only of sulphur, but also, of PAH type substances, that is,

polyaromatic hydrocarbons. It can get contaminated when in contact with metals as well, especially, those from lead and petrol, thereby, causing combustion, for instance.

With regard to one substance which is reprocessed for financial benefits in this country, the recycling of car batteries could be cited as an example. To begin with: A general requirement in South Africa is that anyone purchasing a new car battery must submit his/her old car battery to the relevant company from which the battery is being bought. In Johannesburg, Fry's Metals Company is the lead smelting company for recycling. Normally, after the batteries are collected, the plastic is separated from the sulphuric acid and lead as well. The lead is treated in a furnace where the coal is added to make any lead oxide turn into lead material. This "new" lead product is then sold to manufacturing companies for the production of car batteries.

CSIR: Not Sure.

Groundwatch: It is positive because from the little information which is available to this organisation, most of the waste South Africa imports from other African countries is generated from products which originated in this country (such as batteries). It is also positive in that the country has more advanced methods of dealing with wastes than our neighbours do. However, on the downside are the potential and real environmental and health effects of handling hazardous wastes. First prize would be for all countries to ONLY manufacture goods which do NOT generate any hazardous wastes.

### Analysis

Intra-African toxic waste trade is perceived as positively benefiting South Africa and other trading partners of the region. Of particular interest is the fact that South Africa's Departments of Environmental Affairs, Water Affairs and Forestry and UCT Chemical Engineering perceive such trade to be economically beneficial if conducted in a sustainable fashion, and thus worthy of pursuit. Diametrically opposed to this stand are South African NGOs, which in this sense, bear similarity to Ghana's EPA, MEST and every other office in Ghana which deals with toxic waste regulation. For this latter group, trade in toxic waste does nothing but damages the environment of another. This conforms to Mander and Goldsmith's tenets about nothing but the disastrous consequences of free trade on the environment, with specific examples about the effects of trade in car batteries and certain forms of toxic waste on the environment, *inter-alia*, in

Taiwan.<sup>23</sup> Hence, the need for "local production" for "local consumption", these two authors suggest.<sup>24</sup>

From this perspective, contrary to the South Africa's DEAT, DWAF and UCT Chemical Engineering Department, in Ghana and within South Africa's environmental NGOs, no mention was made whatsoever of such expeditious ventures as battery collection/mercury recycling or similar projects, during a study tour there and subsequent correspondence with various officials about my research. It may be timely to take an inventory, not just of PCBs, but also of used batteries and fluorescent tubes, similar to the projects and proposals discussed by UCT's Chemical Engineering Department in 3 (c) for instance, in Ghana. Such trade could generate employment and also reduce the cost of having to purchase new products all the time, instead of simply treating and recycling the, which is far more reasonably priced. It was stated that recycling is virtually absent in this country. Recycling could be started. After such inventories have been taken, a collection and reprocessing plant could be established, with the aim of recycling these substances, for export within the region. The only important factors are to ensure that environmental considerations are prioritised in such a project and also, that such a plant is set up in an industrial and remote area. Groundwatch especially advocates greener and cleaner production methods in every activity being undertaken by companies.

Within the context of NEPAD, when such envisaged projects are eventually implemented, different countries could also specialise in the importation, recycling and exportation of different forms of these toxic waste. This could also enable each country to specialise in treating a particular product<sup>25</sup> and also, not use any other's territory for a "waste dump" in intra-African toxic waste trade.

5: (a) Does your country have adequate means of treating hazardous waste in terms of recycling, reprocessing and final disposal?

#### Answers

DEAT: Yes.

DWAF: Sometimes, not so much.

For example, in the case of *Thor*, the incineration process for treating mercuric waste was not good enough. This was manifested in the existing inadequate filters for mercuric treatment and the lack of labour safety at this company.

WESWC: To some extent.

Bowman: No.

APD/DEAT: Yes and no. The official stated that incineration is the best means for disposing of waste and must be used more often in South Africa. From an economically beneficial perspective, he reasoned that this process saves land and reduces volumes of waste. It is only when incineration is operated by unqualified people that it becomes dangerous. This official suggested that for more efficiency, the government trains more people to ensure that they have the requisite qualifications in chemistry, and are held responsible if a given incinerator exceeds the required quantities of waste it must carry during the incineration process. The USA has made an improvement in this light and could be hereby emulated.

According to this official, this viewpoint is contrary to certain notions which hold that that incineration is not very advisable, owing to the emission of gases involved in this process. If and only if it is well conducted, the end products of this process will be carbon dioxide and water, he conceded. Carbon dioxide is a greenhouse gas, but is emitted in minute volumes which do not pose any problems and water, obviously, is harmless.

BCRC, Pretoria: NA.

GEM: Yes and No. The officer here advised that companies, industries and other sectoral activities incorporate the preventive principle into these activities. In such situations, considerably low amounts of waste will be generated after any activity. Such waste should then be encapsulated until such time that the toxicity therein ceases, the officer stated. This is much better than incineration which creates POPs, spreads obnoxious gases and thereby simply translates one gas from one medium to another. He stated emphatically that in incineration, there is no such thing as zero emissions. Some vendors in the North are trying to promote either failed or rejected technologies here, such as "plasma arc" and other thermal technologies - all incinerators but by a different name.

EJNF: Yes and no. We use methods such as incineration which poses many dangers. The government should come up with alternatives, that is, (i) Greener and cleaner technology methods and means, as a result of more governmental pressure and work in this field, and (ii) More recycling.

He further explained that these approaches to waste disposal are more effective because pragmatically speaking, from the viewpoint of a community based organization, the attainment of a zero/half waste target may not be a realistic ideal. When one considers the packaging processes involved in many industries' activities and in those of stakeholders, it becomes apparent that it is inevitable for these industries to produce waste from cradle to grave. Tins, bottles and plastics, for example, are produced in a lot of supermarkets. However, in the face of abundant waste production, incentives are lacking and are very scarce in our mainstream. To this challenge, one could say that Law and Policy are needed. Every centre and community needs a recycling centre where goods such as coke and beer bottles are recycled and sold at a price. The solution would be that government and corporations, whatever they use, should have an incentive tag to mobilise people to form service providers. Community fora should also be organised on a monthly or quarterly basis, to educate the people on how they can assist in this process.

The EJNF also cited the *Amandla Waste Creation* and the *Soweto Mountain of Hope* projects, as examples of areas in which government as well as these companies could provide incentives. For example, in 1990, the EJNF initiated the project, the *Amandla Waste Creation*, prior to 1992 when the EJNF was formed. This project won the Greentrust Award. Soweto was buried in waste. Thus, this project authorised the young and unemployed to recycle waste, sell it and so on. They were frustrated at the end of the day. This owed to the fact that waste dealers cheat on prices and most of the money is channelled to travel expenses, for instance. The government therefore has to assist community organisations, and must be more empowered. For example, it must give out dustbins to communities. This whole process of recycling is also a challenge to communities.

This project, Amandla, led to another project, the *Soweto Mountain of Hope* through which, land which was hitherto dirty, is now being utilised for plus-minus 200 or 300 kids after school. They organise drama activities and use the land for other recreational purposes. These kids are also taught environmental issues as a whole-integrated approach, and not as a field meant for the first world alone. They also learn about conservation, wilderness issues and other environmental matters.

UCT/ChemEng: NA.

CSIR: NA.

Groundwatch: No, although South Africa seems to be better off than some of its neighbours. There is a very real need for safe, non-polluting, non-combustion methods of treating hazardous wastes. An even greater need exists for government to create incentives for industries to manufacture products which do not generate hazardous wastes.

### Analysis

Although the governmental departments/ministries provide that this country has made improvements on waste disposal mechanisms since the Thor Chemicals incident, Bowman and the NGOs advocate that there is still need for improvement in this sphere. This would include ensuring cleaner production methods through incentives and community-based projects. The fact that there have been guidelines established by the DWAF, for instance, with stipulations, concerning waste disposal and a National Waste Management Strategy in recent years, for example, show that the government has made ameliorations in this matter. On the other hand, the need for cleaner production methods and greener activities, as stressed by the NGOs in particular, should also be encouraged, to refrain from polluting the environment with waste. A proper law with accurate stipulations is also needed and recommended.

5(b): How do you dispose of various wastes, such as medical, agricultural, household, industrial and mining waste?

### Answers

DEAT: Each category has separate types, such as landfills and incinerators. Check DWAF requirements.

DWAF: Check requirements of handbook 1.

WESWC: These range from disposal in landfill sites, incineration, dilution, decay, vitrification, containerization, dumping at sea to holding in secure premises. The best method of treating waste is to stop production methods leading to the creation of hazardous waste.

Bowman: Landfill sites.

APD/DEAT: Different types of waste require different types of treatment.

BCRC, Pretoria: NA.

DTI: NA.

GEM: Medical: Currently, by burning, but there is a growth in non-incineration technologies, such as Autoclave;

Agricultural: We are faced with a POPs issue that we are trying to address with non-thermal technologies;

Household: Usually to landfill;

Industrial: Usually to landfill or hazardous waste site; and

Mining waste: Straight to mine dumps and tailings dams...

EJNF: NA.

UCT/Chem Eng: In the past, other hazardous waste practices by waste disposal companies were shocking. For instance, solvents were being disposed of, by dumping them into evaporation lagoons. Thereafter, they would be left for the sun to burn them.

These days, co-disposal is being used in hazardous waste disposal options. An example is trenching hazardous waste on top of organic waste, whether it is liquid, solid or assumes another form. The site engineering has to be good and the type of waste taken into account here. For instance, if the waste can biodegrade over a reasonable period of time, then co-disposal is fine as this method involves the biodegradation of substances in waste. Furthermore, the level of toxicity of the substance, and the kind of waste it is, for example, are also important factors which are taken into consideration. For example, if it is a metal, it should not be mixed with general waste. Normally, these wastes, even the highly toxic ones like PCBs, when left in their drums do not cause any harm. However, when they come into contact with water, especially, groundwater, they pollute the water and become dangerous.

One example of a well-known South African company which deals with hazardous waste is Eskom. It has a separate, well-structured collection system for collecting PCBs from transformers in motor vehicles, for treatment. It does not specialise in the collection of other lubricating oils. The EU has at the moment established Directives on the end of life vehicle. This deals with the PCBs shredder in motor cars.

Some of the legislation goes overboard in an attempt to control hazardous waste (too comprehensive in what is covered and too restrictive on limits) resulting in a large



workload on monitoring and licensing officials. The means to implement and enforce such legislation is lacking in SA.

The problem is that the precautionary principle is being applied in situations where there is already enough information to follow a sustainability route. If we throw all our recyclable material into landfills, what are we doing to promote sustainable utilisation, and what impact is this going to have on our future as we plunder our raw resources?

Use of phosphate fertilizer in place of sewage sludge can put more bio-available cadmium into our land and into our food chains than sewage sludge. Yet, there is no restriction on use of the cadmium-rich phosphate ore used to make the fertiliser, and no requirement to remove cadmium in the manufacturing process.

CSIR: NA.

Groundwatch: Most of them are land filled or stockpiled. Some are incinerated. Some are sterilised, for example, medical waste.

#### Analysis

From the above, it is obvious that South Africa treats different categories of waste in conformity with different methods of waste disposal, as enshrined in the health and environmental guidelines which are stipulated by the DWAF. In this regard, it is similar to Ghana which also treats different categories of waste with different waste disposal mechanisms. However, Ghana uses environmental standards which are set up by its EPA. South Africa seems to be more developed as it has various incinerators and specialised companies such as ESKOM for managing and treating waste. It is indicated that in South Africa, waste was carelessly dumped in the past. Similarly, in the Ghanaian context, it was discovered that mining waste and cyanide were carelessly dumped in the Western regional town of Abekwasi. In Ghana, more attention is also being given to such issues now. The practice of stockpiling waste in Ghana and Côte d'Ivoire also needs to be departed from, as this causes environmental deterioration over a cumulative period of time. The South African offices advocate the incorporation of the preventive principle as a general rule for waste treatment and disposal. Though Ghana seems to be aware of this principle, the findings do not reveal that this need has been explicitly provided for/stated in any municipal law. As far as Côte d'Ivoire is concerned, this principle is reflected in Article 26 of its *Loi 96-766*.

5(c): Are any of these categories of waste exported or imported for financial benefits and if yes, where do you send them and import them from?

Answers

DEAT: NA.

DWAF: NA

WESWC: NA.

Bowman: Do not know.

APD/DEAT: NA.

BCRC, Pretoria: NA.

DTI: NA.

GEM: There is the likelihood that some of these categories are being imported, but we have no formal response from government. Whatever the situation, the potential financial benefits will be far outweighed by the negative health and environmental impacts.

EJNF: NA.

UCT/Chem Eng: NA

CSIR: Do not know.

Groundwatch: As far as I know, we only import/export industrial hazardous wastes and not any of the other categories. Naturally all industries involved in the waste trade do it for financial benefits.

Analysis

Most offices are not aware whether the categories of waste in 5(b) are exported or imported from and into this country, though one office is generally aware that this country imports and exports industrial waste and not the other categories of waste. Another NGO, unaware of what categories of waste are being imported or exported, still states that trading in such wastes would certainly damage the environment and must not be overlooked because of financial issues. When a fixed law has been established and there is more collaboration amongst these offices, such trends need to be monitored keenly and offices in charge of these matters made aware of the situation as it is in reality. For instance, the Department of Health has indicated reports which show that medical waste is sometimes exported out of this country illegally, but the destination is not known, from discussions with officials at the Department of Health in Pretoria, April 2002. Such

practices need to be monitored more closely. The possibility of exporting composted household waste in the form of fertilizer to other countries of the region could also be considered by government, as this is an income generating activity which also provides employment. This is similar to ongoing projects in Kenya, Egypt and Zambia on a small scale, and has been recommended for Ghana.<sup>26</sup>

6: Questions 6 dwells on the various aspects of the laws on hazardous waste, from international and regional perspectives.

6 (a): Has your country adopted the Basel Convention?

Answers

DEAT: Yes.

DWAF: Yes.

WESWC: Yes.

Bowman: Ratified but not incorporated into law.

APD/DEAT: NA.

BCRC, Pretoria: Yes.

DTI: NA.

GEM: Yes.

EJNF: Yes.

UCT/Chem Eng: Yes.

CSIR: Do not know.

Groundwatch: Yes, but not the Basel Ban Amendment, nor has South Africa fully implemented the Basel Convention.

6 (b): Has your country adopted the Bamako Convention?

Answers

DEAT: No.

DWAF: No.

WESWC: No.

Bowman: No.

APD/DEAT: NA.

BCRC, Pretoria: No.

DTI: NA.

GEM: No.

EJNF: No.

UCT/Chem Eng: No.

CSIR: Unsure.

Groundwatch: No.

#### Analysis for 6 (a) and 6 (b)

While the DWAF, DEAT, BCRC, UCT/Chemical Engineering Department and the environmentally-related NGOs confirm South Africa's ratification of the Basel Convention and its non-membership to the Bamako Convention, the CSIR and DTI are unsure of the relationship of this country to these two conventions. Bowman particularly stresses the legal aspects of this membership to Basel, that is, in reality, this accession has no binding legal effect in South African municipal law as it has not been incorporated therein.

6 (c): What are the various municipal laws of your country which have been enacted in accordance with these two mechanisms?

#### Answers

DEAT: None so far. However, a Draft Waste Bill is being developed by parliament. See 8 (e) below for full details.

DWAF: NA.

WESWC: NA.

Bowman: None that I know of.

APD/DEAT: NA.

BCRC, Pretoria: None. The DEAT is currently formulating a legislation to deal with common environmental issues which include matters pertaining to toxic waste trade regulation. This law formulation process is being carried out under the auspices of its newly established Law Reform Process to improve upon existing South African environmental law.

DTI: NA.

GEM: NA.

EJNF: NA.

UCT/ChemEng: NA.

CSIR: Unsure.

Groundwatch: This organisation is not aware of any such municipal mechanisms.

### Analysis

The overall impression is that these offices working with hazardous waste issues are not aware of any South African national laws which enforce this country's obligations under the Basel Convention. However, the DEAT and the BCRC confirm the establishment of a Law Reform Process, under which a new Draft Waste Bill is being discussed in parliament. This should culminate in the enactment of a new law on toxic waste trade, which will enforce South Africa's commitments to the Basel Convention.<sup>27</sup>

6 (d): How is your country benefiting from the training programmes and workshops of the Basel Convention Regional Centres in Africa?

### Answers

DEAT: Practical lessons are being drawn from case studies concerning hazardous waste management.

DWAF: NA.

WESWC: NA.

Bowman: Do not know.

APD/DEAT: NA.

BCRC, Pretoria: See CD-Rom for series of workshops, organised by BCRC Pretoria, from date of its inception.

DTI: NA.

GEM: NA.

EJNF: Very limited.

UCT/ChemEng: NA.

CSIR: Unsure.

Groundwatch: The organisation could not comment much on this, save that as a host country for one of the regional centres, many of South Africa's government employees have had the opportunity to be further educated on the safe disposal of wastes.

### Analysis

Many offices are not familiar with the training programmes of the BCRCs around the world, in the continent and also, the one in Pretoria, for English-speaking African countries, which is particularly relevant to this thesis. Hence, only the DEAT and the BCRC could provide information on the beneficial aspects of the training programmes for participants of this country, with Groundwatch generally advocating that many employees in this country could generally derive benefits from the BCRC, which happens to be situated in this country. While the DEAT generally emphasised the benefits of these training programmes as being the practical lessons in waste management, the BCRC in Pretoria referred the candidate to the CD-Rom they presented to her, which has detailed information on this issue. This information indicates that participants seem to have derived positive lessons from BCRC programmes in the following way:

- (i) Gaining insights into practical experiences of waste management issues through presentations of national inventories by South African and international experts, organised site visits to a transformer station, a hospital and a hazardous waste landfill site: Founding Workshop and First Training Course of the BCRC, Pretoria, 1 to 6 October 2000;
- (ii) Emphasis on involving industry in hazardous waste management, through the development of appropriate legislation: Basel's Founding Workshop and First Training Course of the BCRC, Pretoria, 1 to 6 October 2000;
- (iii) The establishment of relevant contacts in other countries who are involved in hazardous waste management systems, inspite of the fact that other important issues from which the participants could benefit, were not addressed. These issues included how to address the problem of obsolete pesticides and also, how to facilitate the process of technology transfer in managing hazardous wastes: First Continental Conference for Africa on the Environmentally Sound Management of Unwanted Stockpiles of Hazardous Waste and its Prevention, convened by the Government of Morocco and UNEP's Secretariat of the Basel Convention, for African participating countries of the BCRC, 8 to 12 January 2001;
- (iv) Managing landfill sites in an efficient manner, through the use of the high-level of technological efficiency, for instance, how this was done at the landfill site in Mare Chicose, in Mauritius. This knowledge was acquired during a visit by certain officials from the DEAT and BCRC to Mauritius from 8 to 11 May 2001. The

visit was based on an invitation from the Mauritian delegation at the meeting in 6 (d) (iii) above, Morocco, from 8 to 12 January 2001;

- (v) The compilation of national inventories of hazardous wastes for SADC countries and lessons for a planned project on PCB management by DANCED: February 2001, Meeting of the Secretariat of the Basel Convention, Geneva, Switzerland;
- (vi) In-depth knowledge into hazardous waste problems and case studies on practical PCBs management (as presented by the Kenyan delegates): Kenya Workshop, 17 October 2001.<sup>28</sup>

7: What is your country's attitude towards promoting the NEPAD?

#### Answers

DEAT: Positive, as it is bound to ensure a deeper form of regional integration in Africa. He explained that the attainment of such integration and its resultant positive developmental goals (in this country and other African countries for that matter), necessarily require the eradication of rigid mechanisms dealing with toxic waste trade.

DWAF: NA.

WESWC: NA.

Bowman: Positive.

APD/DEAT: NA.

BCRC, Pretoria: Positive and fully committed to promoting the goal of regional integration under NEPAD. The office explained that although the sound management of the environment is essential, one must also not lose sight of the economic benefits to be derived from toxic waste trade. The establishment of NEPAD is therefore timely and could promote regional integration, meaning that South Africa would then have to ratify Bamako. However, we should then reflect on why we should adopt two conventions with the same objectives.

DTI: NA.

GEM: This country has greatly championed NEPAD.

EJNF: Positive.

UCT/ChemEng: NA.

CSIR: Unsure.

Groundwatch: Our government is one of the main proponents of NEPAD. Our industries are a bit cautious, and many civil society organs are critical of the decision-

making and consultative processes within the NEPAD. Officials working with these mechanisms claim that they are marginalised when it comes to these processes.

### Analysis

Most offices are aware of South Africa's full support for Africa's commitment to a more intensive form of regional integration in the form of NEPAD and the fact that this country has engineered the NEPAD. The DEAT and BCRC particularly discussed the implications of such support to South Africa's trading arrangements with other African countries. For these two offices, this adherence to NEPAD might make it more advisable for this country to adopt the pro-African Bamako Convention. However, having already adopted the Basel Convention, now acceding to the Bamako Convention would raise certain issues. In the past when Basel simply regulated waste trade between the countries of the first world and those of the third world, accession to Bamako may have meant membership to two conventions with somewhat different objectives. There would be a need for bilateral agreements with prospective parties for waste trade, as and when necessary.

Now, with the Third Ban Amendment,<sup>29</sup> the objectives of Basel become closer to Bamako in banning toxic waste imports from OECD to non-OECD countries. The question becomes the same as in the case of Ghana. Why adopt two conventions with similar objectives and not avoid duplicity in this regard? The financial implications and various obligations for the attainment of the same objective might then be considered. In this vein, the DEAT concedes that South Africa still accede to Bamako. Since this country's contribution to the African Union is the hugest of all African countries, the secretariat of Bamako moves from Addis Ababa, Ethiopia, to Pretoria, South Africa, where it will be headquartered. There will also be free office space and other facilities to ensure the smooth functioning of the Convention, the DEAT suggests.

However, one is of the view that for the sake of avoiding duplicity and unnecessary expenses, South Africa's strong commitment to NEPAD might also make it advisable for this country to simply adopt Bamako in addition to Basel. This country may then have to participate in the meetings of both conventions and then negotiate bilateral agreements on a case-by-case basis, with any first world country which wishes to engage in toxic waste trade with it, provided the toxic waste trade covered by such agreements are conducted in



an environmentally sound manner. This is permissible by both Conventions.<sup>30</sup> As far as moving the Bamako secretariat to South Africa is concerned, unwillingness on the part of other African countries might just suggest that the secretariat continue functioning at the AU in Addis Ababa. On the other hand, if these countries so desire and arrive at a consensus on this matter, moving the office, as proposed by the DEAT may be possible.

One NGO voices the concerns of South African civil society organs and industries that they are marginalised from the decision-making processes and consultative processes of NEPAD on matters relating to toxic waste policy and practices as well as other environmental issues, *inter-alia*. A solution to this problem may be for the governments of these countries to reflect on making e-mail addresses and websites available. Here, opinions concerning toxic waste matters and a variety of other developmental issues affecting this continent, in the form of public debates and discussions, will be held and sent to the NEPAD secretariat. This could pave the way for improvements in the workings of NEPAD, during these early developmental stages of this partnership.

8: Questions 8 dwells on the various aspects of the laws on hazardous waste, from municipal perspectives.

8 (a): On a scale of 1 to 5 (best to worst), how would you rate the current law and policy in your country in terms of sufficiently addressing hazardous waste import and export issues?

#### Answers

DEAT: NA

DWAF: Rating: NA. The laws on toxic waste trade have always been fine. Their implementability has been problematic though.

WESWC: NA

Bowman: 5.

APD/DEAT: NA.

BCRC/Pretoria: NA.

DTI: NA.

GEM: 4.

EJNF: NA.

UCT/ChemEng: NA.

CSIR: Unsure.

Groundwatch: 4. Almost worst.

### Analysis

The environmental law office, Bowman, and two NGOs, rated the current trading laws regulating hazardous waste in this country as being particularly poor. These laws are fraught with inefficiencies and poverty of administration, the offices asserted. According to the EJNF, these current laws are simply mediocre. Though the EJNF does not provide an answer in this regard, it also opines that the absence of governmental capacity needed to ensure the implementation of some of these laws include the loopholes which need to be addressed. For the DWAF, the existing law and policy in this sphere, that is, the NEMA and the National Waste Management Strategy, may not be so inefficient. The remaining offices all remained non-committal in their assessment of these laws. It seems that the laws are average, for steps are being taken to ensure that a fixed, effective law comes into operation, in addition to the already developed series of strategies, such as the National Waste Management Strategy 1999. The pre-Thor Chemicals years scenario seems to have been departed from. However, certain problems still need to be addressed, as will be evident from discussions in 8(b) to 8(e).

8(b): How has your municipal law developed in this area?

### Answers

DEAT: On the whole, it could be said that there has been a drastic amelioration in South Africa's approach to managing imports and exports of toxic waste, notwithstanding the fact that there is still a lot of room for improvement. This country has always been one of the greatest proponents of prioritising environmental conservation issues. Hence, South African environmental legislation on hazardous waste management, in the past, focussed more on hazardous health. The Environmental Conservation Act 1989 defined waste and all these substances from this perspective and thereby adopted an approach which was more for conservation. The Department of Water Affairs and Forestry deals with landfilling of hazardous waste and also approached it from an environmental perspective. A new law on toxic waste trade is in the process of being promulgated, as mentioned earlier. It is now anticipated that this law on toxic waste will approach this issue while also considering the economic benefits which can be derived from such trade. In addition to

this, South Africa hopes that by 2025, its industries and other sectoral spheres of activity will have a zero waste concept, that is, it will produce no waste at all. The only waste that will be produced is human carcass.

DWAF: NA.

WESWC: NA

Bowman: Not very well.

APD/DEAT: There has not been much development of laws on hazardous waste trade for decades. The office has been more familiar with the Atmospheric Pollution Act which has been in existence since 1965. No changes have been made to this law.

BCRC/Pretoria: The past regime did not accord any priority to environmental issues but dwelt on economic issues at the expense of environmental protection. The inevitable result of this was a great deal of environmental degradation and a fragmentation of the laws dealing with environmental issues. For example, the Departments of Minerals and Mining, Environment and Tourism, as well as Health and Water Affairs, all worked on aspects of environmental issues without close collaboration. Therefore, there was an overlap in tasks. However, at the moment, the Law Reform process initiated by the DEAT empowers bilaterals to draft a common legislation on environmental issues. This has to be ready by June 2002. Hopefully, this Waste Management Act will resolve these problems.

DTI: NA.

GEM: The NEMA and Waste Management Strategy are still being developed, but there is no capacity within the government to implement them. However, the government does not seem to be actively supporting the formulation of a new legislation.

EJNF: NA.

UCT/ChemEng: In this country, there is currently no law for dealing with the end of hazardous waste process. The National Waste Management strategy makes provision for end of waste treatment and disposal issues. However, it must be borne in mind that this is just a strategy and is not a law in itself.

CSIR: Unsure.

Groundwatch: It does not seem that this country has any, except perhaps, in one or two of the very well resourced, large municipalities such as Durban and Cape Town.

### Analysis

From these answers, it seems that current laws on waste trade are not fully developed. From the perspective of Bowman for instance, the law is not really developing. Groundwatch provides that municipalities such as Durban and Cape Town are the only ones developing any laws/policies on this matter. However, of South Africa's eleven provinces, if only two are developing their laws in this regard, then, perhaps, it could be said that there is still a long way to go. Many other offices such as the DWAF, DTI and the WESWC are not aware of any developments within the law. The GEM criticises the supposed lack of governmental support for sound toxic regulation and the development of appropriate legislation in this regard.

On the other hand, the existence of a NEMA and a Waste Management Strategy are indicative of the fact that this issue has been accorded some attention by the government. However, a fixed law is still yet to be developed in this vein. It seems that this law will now incorporate both environmental and economic concerns, and has departed from past practice of focus on economic issues alone. From the viewpoint of the DEAT, the development of these laws is also being done with due regard to the incorporation of the preventive/precautionary principles, which should be mandatory for South African companies now. These principles will be important to the extent of ensuring a zero waste concept by 2025. The Pietersburg/Polokwane Declaration, for example, adopted by members of the community of Pietersburg/Polokwane in February 2002, seeks to accomplish this objective by 2020. It is important that the other offices such as Bowman, DWAF and those working on toxic waste matters, be informed of these planned laws, by the DEAT, to keep abreast with latest developments which arise in this field.

Highly ambitious though the zero-waste objective may seem, it is also impressive that the proposed laws on waste should aim at the attainment of such exorbitant standards. This demonstrates the South African government's total commitment to ensuring that this country resolves every problem relating to toxic waste issues. Here, it is commendable that the new law will advocate the precautionary approach of foresight rather than the polluter pays approach of the past, when rectification has to be sought after the misdeed has already occurred.

8(c): What are the areas in which the law effectively addresses hazardous waste trade and what are the areas in which it needs to be improved upon?

#### Answers

DEAT: Positive areas: Developing high standards for mercuric treatment, as evidence in the Thor Chemicals Case. For instance, when in 1994, the Davis Commission was set up by the South African government to investigate into the Thor Chemicals case, it embarked upon its mandate with a view to:

- (a) Developing a standard for mercuric recycling;
- (b) Developing an occupational health safety standard and
- (c) Establishing whether a particular incinerator can be upgraded, to accommodate a certain required level of waste.

The status of these findings in Thor is that:

- (a) The standard of mercury has been developed and
- (b) Four treatment options have been devised, namely:
  - (i) Incineration of the Thor Plant (Upgrading the whole incineration process used in the mercuric emission exercise);
  - (ii) Retauting: During this process, the gas is controlled within the context of some form of internal combustion;
  - (iii) Landfill is used through encapsulation and
  - (iv) Waste is now exported.

The fact that a new law on waste is being formulated to deal with the fragmentation of legislation on hazardous waste, as part of the Law Reform Process, which started in 1994, is also a positive step. Now, the new Draft Waste Bill is being developed internationally with a chapter on hazardous waste that will dwell on matters relating to the importation of hazardous waste. It has not been exposed to the public yet. Use is being made of the Parliamentary decree that allowed South Africa to ratify the Basel Convention in 1994.

Nonetheless, there are problems in the existent law. These include the acute staffing shortages which pose an obstacle to capacity building, lack of governmental capacity to combat illegal shipments of waste at South Africa's Cape and Durban points as well as various borders and lack of governmental control to manage South Africa's eight landfill sites in all its provinces, as these landfill sites are all owned by the private sector (though the DEAT has issued monitoring standards to be adhered to). Monitoring illegal trade in

hazardous waste and detecting companies which engage in illegal transboundary waste importation and exportation are also big challenges.

DWAF: The main problem lies in its implementation as there are too many people who have to deal with toxic waste regulation. For instance, there are about 200 people who have to deal with water pollution arising from hazardous waste mismanagement alone. The provinces are also in the process of appointing people to deal with various aspects of waste management, but it does not seem that this process will soon be completed.

WESWC: Various good laws exist, but the interpretation and implementation are ropey.

Bowman: There is a serious need to incorporate the provisions of the Basel Convention into our municipal law.

APD/DEAT: The laws need to be updated to incorporate certain principles such as the *locus standi* principle which is now reflected in the 1996 Constitution.

BCRC/Pretoria: The law needs to emphasise the need for more forms of waste prevention and reduction in industrial, healthcare, household and other activities. By 2015, it is hoped that this objective would have been attained. Furthermore, the attainment of this goal will require the law to provide for more waste incentives such as recycling.

DTI: NA.

GEM: The law must put an end to incineration as a form of waste disposal as this emits more toxic gases. However, it should advocate the burning of products such as plastics.

EJNF: NA.

UCT/ChemEng: Since certain forms of waste is just not dumped into open space and certain lagoons as in the Thor Chemicals days, this is itself evident that there is an improvement in the existing law. We however need to adopt environmentally sound practices, including the sound disposal of hazardous waste.

CSIR: Unsure.

Groundwatch: A lot of areas need to be improved upon. At the municipal level, systems need to be put in place to allow home-owners and small businesses to dispose of or recycle hazardous waste materials such as batteries, motor oil, old pesticide containers, old paint containers and fluorescent lights. At the moment, all of these are being disposed of in municipal waste (general waste) landfill sites. There is also a need for municipalities to monitor/track all industries, as well as medical and other institutions which generate hazardous wastes to ensure that they are all disposing of their wastes in a legal and environmentally responsible manner.

### Analysis

Some offices were unsure of the positive areas of the law and the existing problems as well. For the DEAT and UCT Chemical Engineering Department, the fact that the waste is now monitored keenly unlike the Thor Chemicals days, is an improvement in itself.

Problematic areas needing redress were noticeably the issues of woefully inadequate staffing, lack of collaboration between governmental departments and absence of sufficient governmental capacity to monitor illegal deals as indicated by the DEAT. The need for more funding to hire more officials was not mentioned. The GEM explained that having to abandon the use of incinerators and simply adhering to burning is a political issue. Furthermore, this is a matter for our politicians to appreciate that incineration is not the best policy. In effect, the political will needed when addressing this issue must be strengthened. In this case, the challenge then is how to persuade the government to abandon this form of waste disposal. However, it has also been perceived by offices such as the APD/DEAT that if incineration is carried out by suitably trained and qualified personnel, then this may actually not pose a problem. In Mauritius for instance, the successes of operating the landfill site at Mare Chicose also go to prove that once there are high standards of expertise and sufficiently trained personnel, a particular waste treatment facility can be successfully operated without causing any environmental perils. The need to also ensure adequate mechanisms at municipal level for companies to recycle their waste was also stressed by one NGO. This would clearly need a lot of governmental support.

Another worthy ideal of pursuit would be to ensure that the *locus standi* principle is truly operational in any municipal law on toxic waste trade, in order to safeguard the rights of individuals whose neighbourhoods/rights to enjoyment of property may be affected by these illegal imports. The suggestion by the APD/DEAT is timely in this respect. The fact that South Africa's present constitution recognises every individual right to environmental protection may facilitate this.<sup>31</sup> Thus, in the model law on toxic waste trade regulation, the right of an individual to gain access to judicial action in cases of toxic waste dumping where his/her rights are affected or are threatened, should be safeguarded. To a large extent, this could also give effect to the *locus standi principle*, as a fundamental component of the model law. The need for Basel to reflect this country's international obligations in

this regard, after nine years of acceding to Basel, is also important, otherwise this accession becomes meaningless in reality. Incorporating the preventive principle into our activities as advocated by NGOs, is also an ideal which should reflect in the model law, so that we do not have to clean up for our mess, but through waste minimisation and recycling, reduce our polluting activities.

8 (d): Are there enough penalties for those who contravene the current regulations on hazardous waste importation and exportation into and from your country, and how could this be strengthened?

#### Answers

DEAT: Regarding punitive measures, there are currently none in South Africa's policies and legislation. However, it is anticipated that the forthcoming legislation will include penalties which will be stringent enough. Under this law, anyone who contravenes these laws on hazardous waste will be fined a minimum of 1 million US dollars and serve an imprisonment term of thirty years.

Other terms of punishment will also be detailed when the law is ready, the DEAT explained. The DEAT also referred the candidate to the book by Greenpeace which documents information on the Illegal Trafficking of Hazardous Waste in Africa. In that book, there are many stories about the payment by companies of the first world for environmental perils caused to the third world, as a result of their industrial activities and toxic waste mismanagement. From these incidents, it becomes clear that it is better to adopt the philosophy of fines for illegal trade rather than the death penalty. Better let an offender pay than to subject him to death.

DWAF: NA.

WESWC: Vested interest and lack of governmental capacity to keep this trade low profile. The precautionary principle should kick in here. We should not import waste or export it – finished.

Bowman: No, by improving current liability provisions in legislation.



APD/DEAT: NA.

BCRC/Pretoria: There are not enough penalties. Responsibility for ensuring sound environmental management must be thrust on anyone who applies to open a company/industry. This is better than the imposition of penalties.

DTI: NA.

GEM: There are not enough penalties and this should be rectified. The officer explained the difficulty which the government encounters in finding offenders to pay for their pollution and damage caused when there is a hazardous waste problem. Using the polluter pays principle as an example, he discussed the inadequate penalties in the Thor Chemicals and Asbestos cases. In the Thor Chemicals case, the offenders were only fined 10,000 rands for killing people, the officer observed. Also, in the Asbestos cases, asbestos was sent to UK where South African factories had been operating and exporting these substances which damage human health and the environment. Here, we do not hear about any compensation for the polluter pays principle. The government states that it has promised to let offenders pay more for these offences, but this is not so. So that, theoretically, the laws sound fine, but in practice, this is not the case.

EJNF: There are not enough penalties. However, a better approach for the law would be to introduce incentives since the latter are better than penalties, the officer stated. He further reasoned that for some of the environmental damages inflicted by Shell and Engen, it is better for them to come forward to provide reparation. With community-based legislation, there is a zero budget, so this will be a better way to assist these communities, instead of penalising such companies. Therefore, the government must collaborate with NGOs and local community leaders to enable them to accomplish these aims.

UCT/ChemEng: There are not enough penalties under the present law on waste regulation and people cannot be held strictly accountable for illegal dumping or mismanagement of wastes. He advocated a system of extended producer responsibility. Here, a producer sells out a hazardous substance, the government has respective agencies which should go to the seller, so that the seller accounts for what he sold out and also

accounts for the constituent elements of any sold product. This is really a lesson we can borrow and bend from Germany as well as other European countries, he added. However, with the polluter pays principle which is enshrined in our current NEMA, one can still be held responsible for crimes committed in this regard. It is the responsibility of the government to assist manufacturers and industries.

CSIR: Unsure.

Groundwatch: No. This is because from the perspective of this organisation, there has never been anyone who has been prosecuted in South Africa for illegally importing or exporting hazardous waste.

### Analysis

In the face of a general dissatisfaction with the inadequate punitive provisions of the existing legislation on toxic waste, DEAT advocated the adoption of incentives. For the EJNF and GEM as well, this may be a better approach rather than imprisonment or fines, which the new law foresees. Bowman, BCRC and UCT's Chemical Engineering Department assert that the producer liability is better, as each producer is held responsible for every component in a product he/she manufactures. The other offices did not provide any answers. One would say that these solutions may be effective, and yet, for the producer liability, the principle of extended producer liability, as adopted by the German constitution may be a positive step, so that from the cradle to grave cycle of any given product, a producer can be held accountable. The fact that nobody has ever been prosecuted in this country for illegal shipments or purported illegal shipments, also creates a big vacuum in the current existing policy dealing with this matter. Yet, these illicit practices occur time and again. Evidently, with the incorporation of penalties into the new law, and also the inclusion of the *locus standi* principle as a part of the new law, this could facilitate holding such persons to be accountable.

This ensures that any given product is manufactured while ensuring that the very best environmental standards are adhered to. On the other hand, the need for incentives, worthy though they may be, may simply benefit certain companies who disregard environmental principles. Once they are financially well-equipped, they could just go ahead and indulge in any environmentally dangerous practices and pay money after that. However, as these issues concern people's lives, if drastic penalties such as long-term

imprisonment sentences of about thirty years or more are imposed on anyone who contravenes these laws, people may be more mindful of their actions in this regard. This is precisely what has been enshrined in the laws of Côte d'Ivoire and the Gambia, for instance, where illegal toxic waste trade is being effectively controlled. Punishment should therefore not be limited to fines.

8 (e) (i): Regarding the implementation of these laws, do the various Departments and Organisations which deal with hazardous waste regulations in your country work in close collaboration to deal with this issue?

#### Answers

DEAT: Inter-departmental collaboration has improved in this country, when it comes to toxic waste trade regulation. The officer cited the institutionalisation of a Basel Committee whereby Provincial and National Departments form a part of this committee. This committee meets when there is a request for permits to import hazardous waste and other relevant matters in this regard.

DWAF: There exists some degree of collaboration between the government departments, but this is not really enough.

WESWC: Unsure.

Bowman: Yes, but very little obligation is imposed for importers/exporters to obtain permits from the National Environmental Department.

APD/DEAT: NA.

BCRC, Pretoria: Yes.

DTI: NA.

GEM: NA.

EJNF: No.

UCT/ChemEng: NA.

CSIR: Unsure.

Groundwatch : No.

#### Analysis:

From the foregoing, collaboration between various governmental ministries, between governmental ministries and NGOs, and between governmental ministries and the CSIR, as well as other environmentally-oriented offices, is apparently at a low ebb. The NGOs,

for instance, stressed that government conceals vital information from them concerning trade practices involving hazardous waste. It is not surprising then that some of these offices, though they are dealing with these issues, cannot provide certain pertinent facts relating to hazardous waste trade in South Africa, such as past and present examples of waste importation and exportation. With the recently held WSSD (2002), the coming up of a new law and other current developments, this should improve. It may also be remarkable for these offices to present their complaints to the government in this regard for effective redress.

The DEAT positively discusses the Basel Committee which is established amongst the various governmental ministries. One could propose that this Committee perhaps be extended to include the environmental NGOs such as GEM and EJNF, which deal with toxic waste trade regulation, in order that they work together to combat illegal imports/exports and also, to ensure that the model law is strictly enforced.

8 e (ii): What, if any, are the other problems which the regulatory authorities encounter in the management of hazardous waste trade and how can they be resolved?

#### Answers

DEAT: Regarding other problems, there are those which pertain to the existing legislation on hazardous waste management. There is a lot of fragmentation of legislation in dealing with hazardous waste. Upon this realization, a Law Reform Process Project was initiated in 1994. A Waste Chapter was included in this project this year. After the project begun, a legal auditing exercise was carried out to review issues such as the existing legislation and the gaps to be improved upon, for instance.

Another problem is that this country has 8 waste landfill sites in all its provinces. Currently, these are all owned by the private sector. The government has no control over them, but the Environmental Department has issued monitoring standards to be adhered to.

DWAF: There are also a lot of political issues involved within the whole aspect of integrating the environment.

WESWC: NA.

Bowman: NA.

APD/DEAT: NA.

BCRC/Pretoria: NA.

DTI: NA.

GEM: NA.

EJNF: The main problem here is the lack of collaboration on the part of the government with respective NGOs and the public, and the consequent lack of information-sharing with these parties. The EJNF official advocated that in order to depart from such practices, an information-sharing programme must be essentially developed. There should also be self-training, discussion, visits organised by speakers to talk with the public and other relevant activities, he added.

UCT/ChemEng: The environment has a cross-cutting function, so it may be normal to have many Departments dealing with hazardous waste issues. However, the lack of specificity in defining the respective functions of the national, local and provincial governments poses a big problem. There is no clear guidance in this regard and this is something that needs to be improved upon.

Furthermore, the official in this Department stated that companies have complained about the lack of flexibility in existing waste management rules. This also means that companies may find it difficult complying with these high standards, from the perspective of many companies. There is a fair amount of governmental pressure to apply environmental protection principles to Small and Medium Sized Enterprises, for example, in the Metal Finishing Sector and Little Shops for Chrome-Plating. These fall under the country's bi-laws. Other loopholes are evident in the fact that in the past, there was one company, for instance, which got away for ten years without doing anything about the mismanagement of its wastes. Even at the moment, there are about three hundred companies in one city that adhere to certain practices which are not up to standard.

CSIR: Unsure.

Groundwatch: The main problem is lack of information on who is generating hazardous waste or handling hazardous waste, what quantities of hazardous waste are being produced, where and how it is being treated and other pertinent details relating to hazardous waste generation and management in this country.

#### Analysis

Many offices are not aware of the sort of problems involved in the regulation of toxic waste trade. However, on the fragmentation of laws as indicated by the DEAT, a fixed amalgamated law is in the process of being formulated, as the department indicates. Concerning the issue of private ownership of waste disposal sites which is another problem identified by the DEAT, once government oversees that environmental monitoring standards are in place and these private companies are constantly reporting back, with constant visits by officials from the Department, this should ensure that no illegal practices go on in this regard.

Clearly defined roles of various governmental organs are also necessary in order to avoid overlapping or duplication of duties. The government can actually ensure that this is done. It can clarify this in meetings with various officials from various offices.

It may also be advisable for government to pay attention to the needs of companies, to assist those which need help with complying with supposedly high environmental standards, because such standards may even be tightened. If at this stage, these standards are deemed to be too high, the lack of help may mean that these companies would be at a total loss. Such assistance could be earned by training, education and more sponsorship, *inter-alia*.

The lack of information on who generates what kind of waste, which sectors of activity generate which wastes and at what intervals, needs to be addressed. As a pre-requisite for any meaningful law to be enacted and have effect, the quantification of accurate data pertaining to all the kinds of waste generation in a nation's set-up is necessary, otherwise, how does one discern where illegal activities are taking place or may take place in the future?

As long as these steps are implemented, there could be enough solidarity in regulating toxic waste trade, the whole issue of it being a political one may not even exist and toxic waste trade regulation may then become a less cumbersome task for its respective regulatory authorities.

9: How does one verify whether a substance being imported into your country is really hazardous waste, in order to ensure that on the one hand, the laws of your country are strict enough not to import hazardous substances which can actually be environmentally destructive, but on the other hand, that there is no disguised protectionism/discrimination, and substances which are actually not harmful are not classified as toxic, simply because they are being imported from another country?

#### Answers

DEAT: NA.

DWAF: In general, we go by the International Maritime Dangerous Standards Code, that is in our SABS 0228. We abide by the guidelines set by this Code, so we just do not practise protectionism. The number of flammable gases and other relevant matters are all listed in this Code. Basel is fairly similar and stipulates the standards to be followed.

WESWC: NA.

Bowman: Need to check the Hazardous Substances Act (Act 15) 1973 in order to ascertain the category of waste.

APD/DEAT: NA.

BCRC/Pretoria: NA.

DTI: NA.

GEM: This is almost impossible to accomplish under current government capacity. There needs to be much stricter legislation and implementation.

EJNF: NA.

UCT/ChemEng: NA.

CSIR: Unsure.

Groundwatch: The first part of this question seems to indicate that some hazardous substances are not environmentally destructive. However, it must be stressed that ALL hazardous substances are environmentally destructive otherwise they would not be classified as hazardous!! Secondly, the organisation does not know of any instances where

imported wastes have been classified as hazardous when they are in fact not hazardous. Infact, one would expect the opposite to happen.

#### Analysis:

As evident above, the only response explaining the rating of hazardous waste characterisation was received from the DWAF. The fact that this official works in this field and is therefore more familiar with the technicalities involved in rating hazardous waste might explain this. The SABS Code 0228 and the Basel Convention are indeed recognisable international mechanisms which may accurately analyse the toxicity of a given chemical. Quite correctly, Bowman also refers to the Hazardous Substances Act 1973, which categorises wastes according to their toxicity, using the SABS Code. It is also hereby recommended that such categorisation of wastes, the reasons for such categorisation and the consequent lists of banned or regulated wastes be attached to the model law. For more transparency, these lists should also be presented by the national governments to the WTO, UNEP, FAO and WHO, before being attached to the model law.

For two NGOs, the solution is simply to ensure that there are very strict toxic waste laws. Groundwatch asserted that waste is waste and once hazardous, there can really be no balancing of the two objectives of free trade and environmental protection.

10: Which other countries, especially developing ones could be cited as success stories in the implementation of legislation which resolves hazardous waste trade issues, and how could such lessons be modified to suit the case of your country in its hazardous waste trade regulation?

#### Answers

DEAT: Uganda and Egypt.

In this light, the DEAT explained that the NEMA of Uganda on hazardous waste is the best not just for South Africa to follow, but also for the region in its entirety. The Ugandan policy is very easy, strict and informed. The approach of Uganda is simple, short and directly to the point. It talks of the indigenous method of managing substances, for instance, the whole process of burning pesticides. An analysis shows the simplicity of this. The Ugandan NEMA also defines the role of government in terms of monitoring and



putting enforcement infrastructure into place. Uganda has only one transit point from East to Central Africa, unlike Malawi and Kenya, for instance, where border posts abound. This makes enforcement controls rather difficult. With such situations, illicit waste trade continues at unprecedented rates. In Uganda, there is only one border post for the entry of chemicals into the country, instead of many border posts. These are all positive attributes, the officer recommended. South Africa could also follow this example, by using just the port of Cape Town, instead of many ports such as Durban and others, he advised.

Furthermore, Egypt's legislation could also be cited as a success story for South Africa to emulate in a lot of ways. The Suez Canal is being used as a point for the transportation and transit of chemicals and other goods. A great deal of control is however being enforced by the authorities of the Suez Canal to combat Israel's polluting activities in that region.

DWAF: Egypt. According to DWAF, Egypt has an advanced environmental legislation. For the other developing countries, there are not much lessons in toxic waste regulation from which South Africa could borrow and bend.

WESWC: India -Exide Case – Here, the polluter paid eventually but not adequately. In South Africa, decision makers should simply read the South African constitution, NEMA and the Rio declaration.

Bowman: Botswana.

APD/DEAT: Mexico. Mexico city, the capital, was for some years, the dirtiest of cities. However, now, this city competes with first world cities like Los Angeles in the USA in terms of sound environmental management and policy. It has thus come a long way in developing environmental laws which have high standards, a number of which touch on toxic waste and pollution issues. In addition to developing laws and standards, this city has fairly and successfully implemented these laws. South Africa could perhaps borrow from this country's example.

BCRC/Pretoria: NA.

DTI: NA.

GEM: NA.

EJNF: NA.

UCT/ChemEng: NA.

CSIR: Unsure.

Groundwatch : NA

Analysis:

Whereas different offices choose different countries as success stories to follow in toxic waste regulation, many offices also believe that there are really no success stories in the continent or worldwide, because illegal toxic waste trade throughout the world is widespread. While both the DEAT and DWAF cite Egypt's Law on toxic waste as their model law, the DEAT also fervently holds that the main successful country in Africa regarding this issue is Uganda.

As evident in 8 (c) above, Namibia could be seen as a pacesetter in its highly efficient regulation of toxic waste trade, and its refusal to import PCBs and toxic waste ranking with it, through its constitution and laws on this matter.

Much more research indicated that Egypt's specific municipal law, Law 4/1994 ensures that its commitments to Basel are enforced at municipal level. Under this law, one important lesson which could be proposed for South Africa to follow is the more cooperative and coordinated efforts between Egypt's ministries of Agriculture, Industry, Petroleum, Health, Interior and Electricity in establishing a permit scheme for granting/refusing imports and exports of toxic waste, based on an assessment of the hazards of such waste.

Other research findings revealed that in the case of Uganda, its limited points of entry of these substances to its ports, is particularly commendable for South Africa and Ghana as well. However, regarding the stipulations of Uganda's NEMA (1994), it could generally be said that the requirement for cleaner production methods and other stipulations such as cradle to grave analysis during the life cycle of a toxic product, for instance, are already enshrined in South Africa's NEMA. This means that there are basically no new lessons to learn in this regard. For the APD/DEAT, Mexico is the choice country as it has come a long way, that is, from environmental dilemmas to high environmental standards, which includes enforcing sound toxic waste laws.

Further research into this matter reveals that Mexico's 1988 Ley General del Equilibrio Ecológico y la Protección del Ambiente (LGEEPA) regulates hazardous waste management, as well as its exportation and importation. Pursuant to the 1988 Reglamento de la Ley General del Equilibrio Ecológico y la Protección del Ambiente en Materia de Residuos Peligrosos, an obligation is placed on producers of hazardous waste to keep track of the wastes generated and assess the environmental impact of their activities. The return to sender principle is also foreseen in the 1996 amendment to this law.<sup>32</sup> It could then be asserted that the Mexican law adopts a very stringent approach to thrusting responsibility on hazardous waste producers. This pattern could be followed by South Africa and the recommendation by the official at the APD/DEAT deemed to be appropriate then.

Further investigative inquiries have also revealed that the laws of Côte d'Ivoire and The Gambia are also specific and important to the discussions of this thesis. For example, these fixed laws have helped solve the problem of illegal toxic imports by combating purported illegal imports into these countries, thereby departing from the trend in the 1980s and early 1990s. As far as illegal shipments are concerned, the Gambia was faced with illegal imports of toxic waste into its territory in 2000.<sup>33</sup>

Regarding the recommendation for Botswana, further research findings reveal that this country's Waste Management Act of 1998 enables the government to fulfil its requirements under the Basel Convention.<sup>34</sup> According to Botswana's Department of Sanitation and Waste Management, Botswana's government does not import hazardous waste.<sup>35</sup> However, it is currently inquiring into the possibility of importing copper containing wastes (from Europe) by the Selebi-Phikwe copper smelter. In this country, seven major oil companies are contemplating collecting waste oil for reuse as fuel in cement kilns, under the Somarelang Tikologo project, in accordance with international environmental standards. This waste is currently being exported to South Africa for use as fuel in a cement kiln.<sup>36</sup> It is also noteworthy that very little incentive has been said to exist in this country for cleaner production methods.<sup>37</sup> The Selebi-Phikwe copper smelter has been reported to cause significant pollution.<sup>38</sup>

India is also recommended. However, it might be questioned that if the toxic waste laws in India were really so efficient, how and why do we have an incident such as the tragic

Bhopal disaster? This fatal incident involving the accidental spillage of the toxic waste from the manufacturing processes of the American Dow Chemical Company, based in India. The disaster occurred in the 1984, and to date, that is, nineteen years later, still deteriorates human life. Moreover, if the polluter pays principle was employed in the Indian Excise case, then, this might not be too good. This is because in addition to monetary payments for reparation, clear and harsh penalties of long imprisonment fines should also be imposed on offenders in the event that the preventive and precautionary principles of foresight are not adhered to. In that case, the situation in India, with respect to these matters, may just be as bad as in South Africa where there is no fixed law. This especially holds true when one considers the fact that the existence of a law should simply be a means to an end, that is, law must be an effective tool to resolving a problem.

Therefore, of the series of recommendations, the foregoing observations make it clear that South Africa could borrow some positive lessons from Namibia, Egypt, Uganda and Mexico. It could also avoid following certain trends in the Gambia, Turkey and India, where illegal shipments of these substances successfully took place, despite the existence of a fixed law, and had to be sent back some damage had already occurred and public protests, sometimes. As far as Côte d'Ivoire is concerned, the existence of a law which would also hold illegal exporters liable, is very much needed. From Botswana, the fact that a fixed municipal law should hold companies such as those in the Selebi-Phikwe region accountable, must be an important lesson.

11: In the case of South Africa:

With regard to the Thor Chemicals case, which of the two would be more desirable for South Africa, and why?

- (a) To ban the importation of trade in mercuric and other hazardous substances altogether, or
- (b) To devise mechanisms for treating mercuric wastes and how effective would this be (financially, for example)?

### Answers

DEAT: It is better to regulate and not ban because through regulation, the government can ensure that free trade goes on while at the same time, this does not damage the environment.

DWAF: Regulate as in 11 (b) and do not ban as in 11 (a). This would be better because there is really no such thing as hazardous waste. There is just a lunatic fear of this whole substance as nothing such as hazardous waste really exists. Take for instance, sulphuric acid. It is a simple raw material which does not really cause much alarm until it is sent from one territory to another. Then, there is this fear. Mechanisms can thus be devised for treating mercury and any other such substance.

WESWC: To ban the importation of trade in mercuric and other hazardous substances altogether is better.

Bowman: Ban and do not regulate.

APD/DEAT: Regulate and do not ban.

BCRC/Pretoria: Regulate and do not ban. This is because some companies such as Mintek, which specifically conducts research on catalysts that are imported, are well-experienced and may be able to treat these substances effectively. In this process, a lot of income is also derived for this country as well.

The official at the BCRC further indicated that patriotism may actually motivate South Africa to resort to a ban amendment to be adopted. Decision 3.1 of the Basel Convention has the same objectives as Bamako. However, one should be mindful of the costs which would be involved when South Africa accedes to Bamako, that is, the huge annual contributions of this country that would go into this process. Even within the context of hazardous waste imports into South Africa, free trade is very appropriate between South Africa and SADC. For example, there is a dire shortage of lead scrape batteries in South Africa. If lead scrape is imported from countries such as Botswana and Lesotho, it could be recycled and put to effective use in this country and exported back as well. Linkage institutions must therefore be established in these other countries.

DTI: A complete ban is recommended.

GEM: A total ban altogether is more desirable, meaning that South Africa must accede to Bamako. The issue of African lives is very important and in this vein, the benefits derived from trading in hazardous waste is not an issue because we must ensure that the North does not use our territories as a dumping ground for waste.

EJNF: (a) is more desirable. We should BAN the importation of these hazardous substances altogether, so as to depart from the current phenomenon where South Africa and many African countries have been turned into a dumping ground for more industrialised countries. If there was a way of stopping such forms of trade, this should be terminated with immediate effect.

UCT/ChemEng: Regulate and do not ban. Once sound environmental principles are taken into consideration, such trade can flow smoothly.

CSIR: Either ban it, or ensure that sufficient control mechanisms are in place to provide acceptable risk. However, since it is unlikely that the latter option will occur, we should perhaps ban toxic waste trade altogether.

Groundwatch: The government should definitely ban and not regulate. We do not need other people's hazardous wastes. We also do not have the infrastructure, laws or monitoring systems to ensure that hazardous wastes are properly treated without ANY harmful effects on human health and the environment.

#### Analysis:

From the responses to this question, the governmental departments/ministries are more favourably disposed towards regulating trade in toxic waste and not banning the importation of these substances altogether. To illustrate this point, the DEAT, for instance, discussed the Thor Chemicals case citing the improvements in Thor's standards of reprocessing of mercury, as indicated in 8 (c).

In this regard, the DWAF also opined that there is really no such thing as toxic waste, but just a lunatic fear of this substance. For the UCT/ChemEng. Department, companies such as the large metallurgical factory, the Colombus Stainless Middleberg at Mpumalanga can be cited as processing and refining toxic waste while adhering to sound environmental management systems. They have made significant improvements in this regard, from 1994 until now. They process stainless steel for export and have:

(a) An ISO 14000 Environmental Management System; (b) A Strict System of Safety and Environmental Protection for its workers.

The NGOs on the other hand are more adamant in their stand on a total prohibition. The GEM, WESWC and EJNF for example, are of the view that the impoverished always suffer toxic dumping from the rich. Such an unfortunate incident, they assert, must be stopped. An assessment of this correlation between the poor and their inheritance of waste at this point brings to mind, Marbury's discussions of "environmental racism". He talks about the poor inhabitants of US North Carolina's Wallonia State County, whose impoverished community was almost turned into a toxic waste dumping ground by the US government in the early 1980s.<sup>39</sup> For the CSIR, it is not possible to conceive of a situation whereby sufficient mechanisms would be in place to regulate toxic waste imports. So why not adopt the precautionary principle and ban substances such as mercury, DDT, PCBs and cadmium altogether?

Hereinunder is a paraphrase of the discussion from one of these NGOs which echoes sentiments of vehement opposition to toxic waste trade:

*At the moment, the government intends to build a nuclear waste dump in Johannesburg. First world countries have been dumping a great deal of toxic waste in Mozambique, Ethiopia, Eritrea and other third world countries. Such unethical practices must be forbidden, because, as indicated, the lives of our people are very important. Waste is waste. The best thing to do would be to stop producing rubbish. Waste should not be a good to be traded in. To arrive at this goal, we must always find a clean alternative. In treating hazardous waste, our aim should be based on the following: "What shall we do with so and so tonnes of waste in a country? What shall we do with it?"*

*We must therefore prioritise health protection and the preservation of human lives, at the expense of governmental industries, trade and so on, in short, at the expense of free trade. For example, Eskom was*

*to build a nuclear reactor which would emit nuclear waste smelter and plutonium, these being radioactive material. This would not be in the best interest of health preservation.*

*The WSSD (2002) and NGO forum believe that zero level emission of waste is a possibility if one really works hard at it.*

*In dealing with free trade issues, the environment and health of the people must not be neglected. In the case of Thor for instance, the company obtained the permission to do what it wanted at the expense of the people's lives and health. Has the government come up with sufficient measures to prohibit similar actions in the future? When will the mercuric emissions from this industry be reduced to a level where people will be totally safe? It is indeed a sad story and reflects the bad planning of the government. New ideas are now being introduced though much needs to be done. Solutions are down here with local people, not with those high up in power. There is still a problem of discussing these issues with the high authority, but how do they tackle problems on the ground?*

*In the same vein, another NGO makes the following observations:*

*South Africa has really not made much attempts to regulate hazardous waste trade. This is because these NGOs desire the establishment of national regulations to seriously restrict the movements of hazardous waste. For the NGOs, they support the primary principle of the Basel Convention, namely, that it is most preferable for hazardous wastes to be treated at its source and for there to be as little transboundary movement as possible of these wastes.*

*In spite of numerous requests from the NGOs to the Ministers of Environment as well as Trade and Industry on several occasions, inquiring into their position on South Africa's involvement in the hazardous waste trade, there has not been any response from the Ministers. For the NGOs, a response is still being awaited.*

*Owing to this lack of response, it is apparent that the Department of Trade and Industry perceives the importation of hazardous waste to South Africa as an economic opportunity to be exploited. From the DEAT, NGOs in this country have also battled for several years to obtain written documentation on this matter, but to no avail. This underlying philosophy of economic opportunities on the part of these Departments as they approach toxic waste could account for the lack of national legislation regarding the transboundary movement of hazardous wastes.*



*South Africa has not made enough efforts to implement the Basel Convention. For example, the NGOs are not aware if this country has ever produced an annual report on its toxic waste trade performance to the Basel Secretariat/Conference of Parties, as required in the Convention. Some officials from the DEAT have admitted that for years, this country has not done this. More recently, that is, within the last two years, some of these officials claim that South Africa has successfully prepared these annual reports. However, no proof has been provided that these reports have actually been prepared, as far as these NGOs are concerned. This is because their requests to see copies of these reports have been ignored by the Departments.*

### **Comments on these Two Observations**

Indeed, it is important that collaboration and information sharing be enhanced between government and these NGOs. Reports of progress being made at national level, as well as national legislation which should be enacted, must all be made transparent to the NGOs which work on toxic waste issues. All these necessary points have been stressed in many of the above analyses, as there is currently a great problem in this regard.

However, one is of the view that the implementation of sound environmental principles when dealing with hazardous waste trade issues creates a scenario where no adverse effects are experienced. The main philosophy behind the Basel Convention now is that developing countries should not be used as a dumping ground for hazardous waste. Sound technologies should also be promoted to enable effective ways of regulating trade in certain recyclable waste such as mercury. It may therefore be better to regulate and not ban altogether, so that the three case study countries also reap the benefits of a free market strategy in this age of globalisation. There should be a gradual phase out of toxic substances such as leaded gasoline and leaded petrol, in accordance with the UNEP Declarations on the Phase-Out of Leaded Gasoline and Petrol<sup>40</sup> for instance, thereby incorporating the preventive principle into various production methods. In the case of highly toxic substances such as PCBs and PBBs for instance, these should under no circumstances be imported or exported from one country to another, whether from an African country to another, or from the first world to Africa, given their high levels of toxicity and potential to cause environmental harms. Recycling toxic substances such as lead scrape for car batteries and other recycling activities in toxic waste should be carried out under very limited exceptional circumstances, based on accurate environmental

evaluations, using international standards. By so doing, there can be a model law which enables government to engage in a simultaneous pursuit of *laissez-faire* market goals while safeguarding the health and environmental protection of South Africa and the two other case study countries as well.

### **(C) CÔTE D'IVOIRE**

The findings are hereby presented in French, that is, in exactly the same language and form as the answers which were provided. Thereafter, a translated version of these findings from French to English, is presented. Based on this, an analysis is also made.

#### **(i) French Version**

Question1 : Comment définirait-on les déchets toxiques ? Quelles serait la différence avec les autres sortes de déchets ? Quels sont les constituants ?

#### **Réponse**

Ministère de l'Environnement: La loi 75-633 du 15 juillet 1975 de la cour de justice définit les déchets toxiques comme étant tout résidu d'un processus de production, de transformation ou d'utilisation, toute substance, matériaux, produits ou plus généralement, tout bien abandonné ou que son destinataire destine à l'abandon pouvant avoir des effets dégradant sur l'environnement. En d'autre terme, les déchets toxiques sont des produits solides, liquides ou gazeux résultant des activités de ménages, d'un processus de fabrication ou tout bien meuble ou immeuble abandonné ou qui est menacé de ruine, entraînant la contamination ou la modification directe ou indirecte de l'environnement par tout acte susceptible :

- d'altérer le milieu de vie de l'homme ou des espèces vivantes
- de nuire à la santé de l'homme, à la sécurité, au bien être de l'homme, de la flore et de la faune ou aux biens collectifs et individuels.

La différence entre les déchets toxiques et les autres sortes de déchets se situe au niveau des leurs effets sur l'environnement et l'existence humaine. En effet, les déchets toxiques dits néfastes ont des effets de dégradation sur l'environnement. Et ce ,contrairement aux autres déchets taxés de déchets légaux résultant souvent des déchets usuels moins destructifs pour l'environnement et constituant parfois des matières premières. C'est le cas

par exemple du chinage qui est la science qui recueille les déchets usuels pour une transformation en matière première non énergétique.

Les constituants de déchets toxiques sont essentiellement les déchets de soins médicaux, les produits de préservation du bois, les mélange eau/hydrocarbure (y compris émulsions) des laboratoires (recherche, développement, analyse médicale), les résidus de raffinage, de distillation ou de tout traitement (goudron sulfurique), les cendres d'incinération d'ordure ménagère, des traitements des surfaces des métaux et matières plastiques etc... Tout ces déchets toxiques sont généralement sous forme de gaz (chlore, vapeur nitrate, fluor) et solides ou cendres (oxyde de fer, sulicates, suies).

Question 2 : Comment les déchets toxiques affectent – ils l'environnement humain, marin, la santé atmosphérique d'un pays ?

Réponse:

Ministère de l'Environnement: Les déchets toxiques affectent:

L'environnement humain par la dégradation du cadre de vie et de l'aménagement du territoire qui se manifestent par l'altération du milieu de l'homme dont les conséquence sont liées à la nuisance de sa santé, de sa sécurité et de son bien-être.

L'environnement marin par la pollution des eaux résultant de l'introduction dans le milieu aquatique de toute substance susceptible de modifier les caractéristiques physiques, chimiques, et/ ou biologiques de l'eau et de créer des risques pour la santé de l'homme, de nuire à la faune et à la flore terrestres et aquatiques, de porter atteinte à l'agrément des sites ou de gêner toute utilisation rationnelle de l'eau.

La santé atmosphérique par la pollution de l'air, émission volontaire ou accidentelle dans la couche atmosphérique de gaz, de fumée ou de substances de nature à détruire la couche d'ozone et à compromettre la santé ou la sécurité publique ou à nuire à la production agricole, à la conservation des édifices (sites et paysages)

Question 3 (a) : Quels chemins emprunter pour promouvoir le libre échange dans votre pays ?

Réponse:

Ministère de l'Environnement: Pour cela, il faut se référer au code de l'investissement et s'y conformer. Cependant je n'ai pas pu avoir les renseignements au niveau du ministère du commerce.

Question 3 (b) : Votre pays participe t-il au séminaire de WTO de Nairobi et Casablanca ?

Réponse:

Ministère de l'Environnement: Oui.

Question 3 (c) : Quels sont les cas présents et passés de l'exportation des déchets toxiques dans votre pays.

Réponse:

Ministère de l'Environnement: Nous n'avons pas eu connaissance d'un quelconque cas à ce jour.

Question 4 (a) : Quelle est la politique de l'import export de votre pays des déchets toxiques conformément aux règles d'intégration régionale ?

Réponse:

Ministère de l'Environnement: Conformément à la loi N° 96-766 du 3 octobre 1996 portant code de l'environnement et aux décrets N° 97-678 du 3 décembre 1997, N° 98-43 du 28 janvier 1998 relatifs à la protection de l'environnement adoptés par notre pays, la Côte d'Ivoire condamne l'import-export des déchets toxiques et ce, en accord avec la convention de Bâle et de Rotterdam attrayant aux dangers des produits toxiques. A cet effet, aucune politique n'a été mise en place dans ce sens.

Cependant, nous notons l'utilisation et le commerce de quelques produits fertilisants ou insecticides dans le domaine agricole avec la soumission stricte aux règles d'intégration régionales.

NB : Pour plus de renseignement sure le Code de l'Environnement, voir ledit Code.

Question 4(b) : Si oui, selon l'échelle de 1 à 5, veuillez indiquer le niveau de l'influence positive et négative sur ce pays et sur ces partenaires commerciaux et régionaux dans le cadre de la libre échange. ?

Réponse:

Ministère de l'Environnement: Pas eu de réponse.

Question 5(a) : Votre pays possède –t-il des moyens adéquats de traitements des déchets toxiques en terme de reconversion ?

Réponse:

Ministère de l'Environnement: Classée parmi les pays pauvres, notre pays la Côte d'Ivoire ne possède pas pour le moment les moyens adéquats de traitement de déchets toxiques en terme de reconversion. Le seul moyen que nous possédons jusque là pour le traitement des déchets toxiques est l'incinération qui malheureusement n'est pas une forme reconvertible mais une forme d'évacuation.

Question 5(b) : Comment disposez-vous de déchets divers tel qu'en provenance des produits pharmaceutique, de m'agriculture, de ménage, des industries et mines ?

Réponse:

Ministère de l'Environnement: Les déchets divers issus de produits pharmaceutique, de l'agriculture, du ménage, des industries et mines sont collectés séparément et traités, généralement par incinération pour certains sur place car jugés toxiques (produits de pharmacie) et d'autres (déchets de ménage) acheminés vers les décharges contrôlées.

Question 5(c) : toutes ces formes de déchets profitent-elles, en import- export, d'un bénéfice financier ? Si oui, qu'elles en est la destination et l'origine ?

Réponse:

Ministère de l'Environnement: Ne possédant aucune politique d'import- export des déchets toxiques, ces produits ne rapportent aucun bénéfices à la Côte d'Ivoire. Ne pouvant les neutraliser à part entière ou les valoriser, les déchets toxiques sont mis en décharge.

Question 6 : Cette question s'adresse aux aspects divers de la loi sur les déchets, conformément aux perspectives internationales et régionale.

Question 6 (a): Votre pays a-t-il adopté la convention de Bâle ?

Réponse:

Ministère de l'Environnement: La Côte d'Ivoire est signataire de la convention et cette convention est en voie de ratification par le parlement ivoirien.

Question 6(b): Votre pays a-t-il adopté la convention de Bamako ?

Réponse:

Ministère de l'Environnement:

La Côte d'Ivoire a ratifié la convention de Bamako depuis le 09 juin 1994.

Question 6(c): Quels sont les diverses lois municipales dont l'ordonnance dépend de ces trois mécanismes.

Réponse:

Ministère de l'Environnement: NB se référer au code.

Question 6(d): Comment votre pays tire-t-il profit de ce programme de formation et d'ateliers des centres de conventions en Afrique?

Réponse:

Ministère de l'Environnement: Notre pays tire profit à travers sa participations aux séminaires et conférences internationales initiés par le PNUE, l'ONU et le PNUD.

Question 6(c): Quels sont les secteurs d'échange où cette loi est effectivement en cours?

Réponse:

Ministère de l'Environnement: La bourse des déchets n'étant pas fonctionnelle dans notre pays, il n'existe ni échange véritables encore moins de lois en vigueur.

Question 6(d) : Quels sont les secteurs où il doit avoir une amélioration?

Réponse:

Ministère de l'Environnement: Aucun, tout naturellement si l'on tient à la réponse précédente.

Question 7 : Quelle est l'attitude de votre pays envers la promotion du NEPAD ?

Réponse:

Ministère de l'Environnement: La Côte d'Ivoire est prenante au NEPAD. Elle a pris part à toutes les grandes rencontres régionales et sous-régionales. Concernant le NEPAD, la Côte d'Ivoire dispose d'un point focal du NEPAD.

Question 8 : Conformément aux aspects divers des lois sur les déchets toxiques:

Question 8(a): Sur l'échelle de 1 à 5, comment évalueriez-vous la politique en cours dans votre pays sur l'import-export des déchets toxiques?

Réponse:

Ministère de l'Environnement: L'import-export des déchets toxiques est interdit par la loi ivoirienne et son application fait l'objet d'une observation rigoureuse (voir code de l'environnement).

Question 8(b): Comment cette politique évolue-t-elle dans ce secteur?

Réponse:

Ministère de l'Environnement: Pas de réponse.

Question 8(c): Quels sont les secteurs d'échange où cette loi est effectivement en cours?  
Quels sont les secteurs où elle doit subir une amélioration?

Réponse:

Ministère de l'Environnement: \_\_\_\_\_

Question 8(d): Existe-t-il des pénalités à l'endroit des contrevenants? Comment cette loi pourrait-elle être valide?

Réponse:

Ministère de l'Environnement: Pas de réponse

Question 8(e): Eu égard à ces lois, les départements et les organismes concernés travaillent-ils en parfaite harmonie en vue de mener à bon port cette entreprise? Quelles sont les éventuelles préoccupations rencontrées par les autorités dans la gestion du commerce des déchets toxiques?

Réponse:

Ministère de l'Environnement: Il existe une coopération à travers un comité interministériel mis en place en CI, qui est dirigé par le ministère de l'environnement. Il existe également un projet de lutte contre le commerce de produits toxiques au sein du ministère de l'environnement et des programmes de sensibilisation et d'éducatons sont mis en œuvre vers les utilisateurs des produits toxiques encore visibles en CI notamment ceux utilisés dans le secteur agricole.

Question 9: Peut-on évaluer le degré toxique d'une substance importée dans votre pays? D'une part pour s'assurer si les lois en cette matière sont assez strictes d'éviter l'importation de produits en réalité dangereux, destructeurs de l'environnement, d'autre part qu'il n'y ait aucune politique déguisée en protectionnisme (discriminatoire), que les produits réellement sains ne soient taxés comme toxiques tout simplement parce qu'ils sont importés.

Réponse:

Ministère de l'Environnement: Les produits importés sont soumis à une réglementation du ministère du commerce et des services compétents de douanes.

NB : Nous n'avons malheureusement pas les réglementations de ces secteurs d'activités.

Question 10: Quels autres pays pourraient être cités particulièrement en matière de succès dans la mise en œuvre des lois réglementant le commerce des déchets toxiques? Pourrait-



on modifier la conduite, les lois en vigueur pour une politique adéquate du commerce des produits toxiques dans votre pays?

Réponse:

Ministère de l'Environnement: Pas de réponse.

(ii) English Version

(1) What would you define hazardous waste to be, as distinguished from other kinds of waste and what are its constituent elements?

Answer

Ministry of Environmental Affairs: According to Law 75-633 of 15 July 1975 of the Court of Justice, toxic wastes are residual substances of production, transformation or manufacturing processes. Toxic wastes have no further use and tend to contaminate the environment.

In another sense, toxic wastes are solid, liquid or gaseous products resulting from household and manufacturing activities. Furthermore, toxic waste derives from all substances, material, products or more generally put, all undesirable goods which are destined to be disposed of. Toxic wastes threaten disaster, result in contamination and directly or indirectly alter the nature of the environment. This is through any act which is likely to:

- Deteriorate the surroundings of man or living creatures;
- Destroy the health, security and well-being of man, flora and fauna, as well as the welfare of individuals and the populace at large.

The difference between toxic waste and other forms of waste is evident in the effects of the former on the environment and human existence. In effect, toxic wastes are ill-fated and cause environmental degradation. This is in stark contrast to legal, less toxic waste which is sometimes raw material. It applies to the case of chinage, for instance, which entails reprocessing normal waste into raw material which has no energy.

Toxic waste essentially emanates from processes involving healthcare, wood preservation, experiments in laboratories of research, as well as development and medical analyses involving mixtures of water and hydrocarbons, which also comprise emulsions. Other sources of hazardous waste are residue from refineries, distillation and every other form of treatment (for example, of sulphuric tar), ashes from incinerating household waste, treatments of metal surfaces and plastic substances... These forms of waste are generally gaseous in form, that is, chlorine, nitrate vapour, fluorine, solid, or in the form of ashes, namely, iron oxide, silicate and soot.

### Analysis

In Côte d'Ivoire, the definition of toxic waste is made with sole emphasis on its toxicity. Furthermore, hazardous waste is deemed to be in its final stage and is deemed not to be of further use.<sup>41</sup> The main characteristic feature of toxic waste which distinguishes it from other forms of waste, from Ivorian perspectives, is the harm which it inflicts on the environment.

(2) How does hazardous waste specifically affect all aspects of the environmental, human, marine and atmospheric health of a country?

### Answer

Ministry of Environmental Affairs: Toxic waste affects:

- Human environment by degrading of all forms of life as well as town and country planning. Such dilapidation is manifest in the deterioration of man's surroundings. These trends inevitably affect the health, security and well-being of man.
- Marine environment by polluting waters with any substance which could modify the physical, chemical and biological characteristics of man, and create risks to human health, contaminate fauna and flora on land and in water. Such a substance also impedes the rational use of water.
- Atmospheric health through intentionally or negligently emitting into the atmospheric layer, gas, smoke or other substances which could destroy the ozone layer, compromise public health or security or destroy agricultural production.

### Analysis

From the discussions above, toxic waste, just as in the two case study countries, has acute detrimental impacts on the environment and well-being of man. It appears in many forms of life and must be regulated in this regard. Just as the cases of Ghana and South Africa, toxic waste is destructive to all forms of life. Therefore, as part of the suggested model law of this thesis, an incorporation of scientific evidence on the generally harmful effects of this substance on any form of life within any environment at any given moment, would be most timely.

3 (a): What steps are you taking to promote free trade in your country?

### Answer

Ministry of Environmental Affairs: For this, please refer to the investment code. However, it is impossible to provide an answer, as this issue concerns the Ministry of Trade.

### Analysis

Though the officer has no answer to this question, at this point, it may be suggested that this country, as it sends participants to the WTO Institutes in Casablanca, from Question 3(b), is indeed taking pragmatic measures to promote free trade.

3 (b): Does your country send participants to the WTO Training Institutes in Nairobi and Casablanca?

### Answer

Ministry of Environmental Affairs: Yes.

### Analysis

It is obvious from this answer that Côte d'Ivoire is an advocate of market liberalism. It thereby seeks to ensure that its officials within the relevant sector, comply with this strategy by sending these officials to the WTO Training Institutes in Casablanca.

3 (c): What are past and present examples of the importation of hazardous waste from the first world and other countries into your country, in the course of free trade?

### Answer

Ministry of Environmental Affairs: Up till present day, this country has never witnessed any such events.

### Analysis

Unlike Ghana and South Africa where there were purported shipments of toxic waste, or actual shipments which had to be sent back,<sup>42</sup> this country does not engage in toxic waste trade.

A specific law and policy which are strictly enforced in this regard could be said to be predominant factors responsible for this. However, case studies such as the refinery processes of La Société Ivoirienne de Raffinage also prove that this country imports hydrocarbons, sulphur and other forms of less toxic waste from Nigeria, when it imports petroleum from that country for refinery. The conclusion which could be made at this point, then is that as far as illegal shipments of PCBs, PBBs and other highly toxic waste is concerned, this is not imported into the country. On the other hand, Côte d'Ivoire does indeed import toxic waste from Nigeria, at least.

3 (d): What are past and present examples of the exportation of hazardous waste from your country into the first world?

### Answer

Ministry of Environmental Affairs: No response.

### Analysis

There was no response to this question. However, it must be noted that illegal shipments of PCBs and other forms of toxic waste have been reportedly sent from this country into Ghana. Though this is not exportation into the first world, it may be possible that similar incidents may be occurring with regard to the first world. Therefore, it may be suggested that the Law 88-651 banning toxic waste imports into the country also forbid toxic waste exports.<sup>43</sup>

4 (a): Does your country import and export hazardous waste from and into the countries of the continent and those with which it has entered into regional integration agreements?

#### Answer

Ministry of Environmental Affairs: In conformity with *Loi No. 96-766* of 3 October 1996 encompassing the Environmental Code and Decrees No. 97-678 of 3 December 1997 and No. 98-43 of 28 January 1998 which our country has adopted with a view to protecting the environment, Côte d'Ivoire forbids the importation and exportation of toxic waste. This is done in accordance with the Basel and Rotterdam Conventions, regarding the dangers of toxic waste. To this end, no law or policy has been implemented in this sense. However, this country permits the trading and use of certain products such as fertilisers and insecticides which are used in the agricultural sector, under the strict supervision of rules of regional integration. For more information on the Environmental Code, please refer to the Code.

#### Analysis

This Ministry indicates that its government forbids all forms of toxic waste trade in this country, in accordance with *Loi No. 96-766* of 3 October 1996. According to the Ministry, this is also in accordance with the Basel and Rotterdam Conventions, which are said to highlight the dangers of toxic waste. However, it must be emphasised that as this country is in the process of ratifying the Basel Convention in addition to the Bamako Convention, it may have to embark on trading in certain forms of toxic waste with other countries including those of the first world countries, when necessary, because Basel is about regulating and not banning toxic waste trade *in toto*. As this country imports fertilisers and pesticides in its agricultural industry, it prudently does this in accordance with the Rotterdam Convention.<sup>44</sup>

As pointed out in Question 3(c) in the case of this country, it is also noteworthy that La Société Ivoirienne de Raffinage in Abidjan, through importing crude petroleum containing hydrocarbons, and sulphur, from Nigeria, demonstrates that Côte d'Ivoire does indeed import toxic waste from certain countries in Africa.

4 (b): If yes, on a scale of 1 to 5 (best to worst), how does this positively and negatively affect this country and its regional trading partners in the course of free trade?

#### Answer

Ministry of Environmental Affairs: No response.

5 (a) Does your country have adequate means of treating hazardous waste in terms of recycling, reprocessing and final disposal?

Answer

Ministry of Environmental Affairs: Since Côte d'Ivoire ranks amongst impoverished countries, it currently does not possess adequate infrastructure for recycling toxic waste. The only available means for treating toxic waste is by incineration which unfortunately is a means of final disposal and not of reprocessing.

Analysis

Here, it is obvious that compounded with the policy of this country which aims at simply disposing of hazardous waste, there is also the problem of financial constraints which prevents Côte d'Ivoire from acquiring technological facilities for recycling hazardous waste. However, since the Basel Convention Regional Centre in Dakar has embarked on the establishment of projects for disposing of medical waste and PCBs in Abidjan,<sup>45</sup> it could also set up similar projects, with different objectives, that is, for recycling less toxic forms of waste for further use.

5 (b): How do you dispose of various wastes, such as medical, agricultural, household, industrial and mining waste?

Answer

Ministry of Environmental Affairs: Diverse forms of waste emanating from pharmaceutical, agricultural, household, industrial and mining processes are collected and treated separately. Waste which is deemed to be more toxic, such as pharmaceutical waste, is generally incinerated. Other forms such as household waste are disposed of, under careful supervision.

Analysis

The Ivorian government remarkably collects and treats different categories of waste, according to the source from which a given category originated. Incineration is the main source of waste disposal for highly toxic waste, such as pharmaceuticals. So far, no accident or harmful side effects have occurred from such operations, and situations such

as Cheliabinsk and Orehovo-Zuevo, discussed in Chapter 5.3.3, have not occurred. On the other hand, it must be borne in mind that in villages such as Blokosso and Anono near Abidjan, the stockpiling of garbage is rife.<sup>46</sup> The best thing in this country as well as the other two case study countries, might be for all its provinces and regions to have stipulated guidelines for treatment of each category of hazardous waste. The relevant documents of South Africa's DWAF are important in this regard and could serve as one useful guide.<sup>47</sup>

5 (c): Are any of these categories of waste exported or imported for financial benefits and if yes, where do you send them and import them from?

#### Answer

Ministry of Environmental Affairs: Since this country does not possess any law or policy regulating the importation and exportation of toxic waste, these products do not benefit Côte d'Ivoire in any way. This country does not seek to permit toxic waste trade in this sense, whether in part or in whole. Neither does it contemplate developing mechanisms for such trade. Hence, toxic waste is disposed of.

#### Analysis

Though this policy sounds fine theoretically, toxic waste trade in the advent of NEPAD may be timely. This could especially be facilitated by the Basel Convention Regional Centre in Dakar. The realistic standpoint of South Africa, as far as trading in these substances are concerned, might be a very useful example to follow.<sup>48</sup>

6. Questions 6 dwells on the various aspects of the laws on hazardous waste, from international and regional perspectives.

6 (a): Has your country adopted the Basel Convention?

#### Answer

Ministry of Environmental Affairs: Côte d'Ivoire is a signatory to this convention. Consequently, the Ivorian parliament is in the process of ratifying the convention.

#### Analysis

If this country is ratifying Basel, then, the proposals in 5(c) above is even more necessary.

6 (b): Has your country adopted the Bamako Convention?

Answer

Ministry of Environmental Affairs: Côte d'Ivoire ratified the Bamako Convention on 9 June 1994.

Analysis

As indicated in 5(c) above, South Africa's ratification to Basel and its membership to NEPAD may mean that it starts trading in more forms of toxic waste with other African countries and certain states of the first world. Having ratified Bamako as well, it may be prudent for an Annex to be attached to Law 88-651, indicating exactly which substances are banned under Bamako. Based on environmental evaluations, this Annex should clearly indicate which forms of toxic waste may now be legitimately traded in, between this country on the one hand, and other countries, on the other. The wastes which are completely banned must also be lucidly detailed with necessary scientific evidence, as indicated in Chapter 6.

6 (c): What are the various municipal laws of your country which have been enacted in accordance with these three mechanisms?

Answer

Ministry of Environmental Affairs: Please refer to the Environmental Code.

Analysis

In addition to the Environmental Code and others in Question 4(a) above, research findings have also indicated that this country is more advanced than the two other case study countries, as far as its legislation on toxic waste trade is concerned. This is because even prior to Basel and Bamako, in 1988, Côte d'Ivoire enacted its specific municipal law banning toxic waste imports, that is, Law 88-651.

6 (d): How is your country benefiting from the training programmes and workshops of the Basel Convention Regional Centres in Africa?



### Answer

Our country greatly benefits from participating in seminars and international conferences which are organised by the UNEP, UN and UNDP.

### Analysis

Although the answer points out that the country derives advantages from these international conferences and training sessions, further information could not be obtained on how this is done. However, research findings indicate that Ivorian customs officers and officials from the Ivorian Ministry of Environmental Affairs benefited from the training sessions on the technicalities of handling toxic waste, during the second meeting of the Basel Convention Regional Centre in Dakar on 5<sup>th</sup> February 2002, for example.<sup>49</sup>

7: What is your country's attitude towards promoting the NEPAD?

### Answer

Ministry of Environmental Affairs: Côte d'Ivoire has championed the NEPAD. In this regard, this country has participated in all the important regional and sub-regional meetings of the NEPAD. This country also serves as one focal point of the NEPAD.

### Analysis

The fact that this country has alongside other countries, spearheaded the NEPAD, demonstrates its commitment to free trade and especially, regional integration. Consequently, it might consider having a uniform definition of hazardous waste with Ghana and South Africa (and in the long-run, other countries of the NEPAD), and then, under what circumstances it may be traded in, in an environmentally friendly manner. Furthermore, this commitment to NEPAD could also act as a boost to helping combat illegal shipments of toxic waste from other countries into Africa, as indicated in Chapters 1.1 and 3.4.5(a).

(8) Questions 8 dwells on the various aspects of the laws on hazardous waste, from municipal perspectives.

8 (a): On a scale of 1 to 5 (best to worst), how would you rate the current law and policy in your country in terms of sufficiently addressing hazardous waste import and export issues?

Answer

Ministry of Environmental Affairs: Rating not available. The importation and exportation of toxic substances is forbidden by Ivorian law which is strictly enforced in this regard.

Analysis

See analysis in Question 4(a). Furthermore, it is not enough to say that the exportation of these substances is forbidden. This must be explicitly put into writing and form part of the forbidden acts involving toxic waste trade, under Section 1 of the Ivorian Law 88-651, discussed in Chapter 5.6.4.

8 (b): How has your municipal law developed in this area?

Answer

Ministry of Environmental Affairs: No response.

Analysis

Relevant discussions in Chapters 5.4 and 5.5 of this thesis, as well as these research findings, reveal that as at 1975, the Court of Justice defined hazardous waste with sole emphasis on its imminent dangers. In 1988, a specific law was enacted banning the importation of toxic waste. In 1996, the Environmental Code Law No. 96-766 was promulgated, spelling out soft-law principles such as the precautionary principle and human right to a decent environment.<sup>50</sup> Against this background, there has been no dumping of toxic waste in this country, which is also remarkable.<sup>51</sup> Illegal instances of exportation are what must be monitored.<sup>52</sup>

8 (c): What are the areas in which the law effectively addresses hazardous waste trade and what are the areas in which it needs to be improved upon?

Answer

Ministry of Environmental Affairs: No response.

### Analysis

Though there is no response in this regard, recommendations in Chapters 5.5.10, 5.5.11 and 5.6 of this thesis are relevant in this regard.

8 (d): Are there enough penalties for those who contravene the current regulations on hazardous waste importation and exportation into and from your country, and how could this be strengthened?

### Answer

Ministry of Environmental Affairs: No response.

### Analysis

The imprisonment term of 15 to 20 years, as well as US \$ 1.6 million for offenders of Law 88-651 seem to be adequate.<sup>53</sup> This, as indicated in Chapter 5.5.10, ensures that in addition to making payments for toxic spills, those who engage in hazardous waste disposal, management and recycling are mindful of the way in which they handle these substances, since this imprisonment term is rather lengthy.

8 (e): Regarding the implementation of these laws, do the various Departments and Organizations which deal with hazardous waste regulations in your country work in close collaboration to deal with this issue? What, if any, are the other problems which the regulatory authorities encounter in the management of hazardous waste trade and how can they be resolved?

### Answer

Ministry of Environmental Affairs: There is a considerable degree of co-operation, as evident in the inter-ministerial committee, which has been established in Côte d'Ivoire and is principally managed by the Ministry of Environmental Affairs. There is also a project within the Environmental Affairs Ministry for the fight against trade in toxic products. Furthermore, programmes of education and awareness have been implemented for the users of toxic wastes, especially within the agricultural sector in Côte d'Ivoire.

### Analysis

The recommendation of thesis in Chapter 5 for an Inter-Agency Permit Scheme in the case of the two case study countries could be seen to have been met in the technical sense, in the case of Côte d'Ivoire. However, it is particularly important that in the case of this particular country, all these offices are abreast of every development, as far as toxic waste trade is concerned. Though the Environmental Affairs Ministry is the principal agency in this regard, success stories of the workings of this scheme could be made readily available, from the perspectives of the Ministries of Health, Agriculture and others. In the present Research project, only the Environmental Affairs Ministry could provide answers to questions involving toxic waste policy and practices in this country. Admittedly, though, the war in Côte d'Ivoire was a contributory factor to this state of affairs. In the case of South Africa, although such a scheme does not yet exist, answers were readily obtained from the DTI and DWAF, for example. In the case of Ghana, the Ghana Standards Board and other offices readily provided answers in this regard.

(9) How does one verify whether a substance being imported into your country is really hazardous waste, in order to ensure that on the one hand, the laws of your country are strict enough not to import hazardous substances which can actually be environmentally destructive, but on the other hand, that there is no disguised protectionism/discrimination, and substances which are actually not harmful are not classified as toxic, simply because they are being imported from another country?

### Answer

Ministry of Environmental Affairs: Imported products are regulated by laws within the Ministry of Trade and the competent customs authorities. It must be borne in mind that the Environmental Affairs Ministry unfortunately has no regulations covering these sectoral activities.

### Analysis

Here, it is recommended that such regulations be strictly enforced in accordance with WHO and UNEP guidelines, for the avoidance of unnecessary protectionism while ensuring the promotion of market liberalism in importing these substances from the outside world into Côte d'Ivoire, especially within the era of NEPAD. This is also necessary in the light of this country's ratification to the Basel Convention. The inter-

ministerial scheme must also be familiar with such regulations. The absence of such regulations could otherwise suggest that this country within the regional and international setting, is committed to mechanisms, and yet enacts municipal policy which starkly contradicts the principles of these instruments.

(10) Which other countries, especially developing ones, could be cited as success stories in the implementation of legislation which resolves hazardous waste trade issues, and how could such lessons be modified to suit the case of your country in its hazardous waste trade regulation?

#### Answer

Ministry of Environmental Affairs: No response.

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<sup>1</sup> Article 2(1) of the Basel Convention.

<sup>2</sup> Article 1(1); See also Chapter 3.4.4 supra.

<sup>3</sup> Lung Institute, Groote Schuur Medical Hospital, UCT.

<sup>4</sup> Community Health Department, University of the Free State, Bloemfontein, South Africa.

<sup>5</sup> For further references, see International Labour Organization, *Encyclopaedia of Occupational Health and Safety*, Volume 2.

<sup>6</sup> Esty, DC *Greening the GATT*, Institute for International Economics, Washington DC (1994), at 9.

<sup>7</sup> *Agence France Presse*, Trade News, [http://www.ban.org/ban\\_news/Japanese\\_man.html](http://www.ban.org/ban_news/Japanese_man.html), 2002.

<sup>8</sup> See Chapters 3.2.4 of thesis on the Preventive Principle, 3.2.10 on Common but Differentiated Responsibility, and 5.3.2 on Weak Environmental Laws and Lack of Coherence between Relevant Governmental Departments.

<sup>9</sup> Article 4(2), Basel Convention; Preamble: Article 8, Bamako Convention; Preamble Article 3 states that the reason for this requirement is the inherent risks to human health and the environment, from subjecting hazardous wastes to transboundary movements.

<sup>10</sup> Bouverie, J "Recycling in Cairo: A Tale of Rags to Riches", *New Scientist*, 29 June 1991, 52-55.

<sup>11</sup> See Chapter 2.6 of thesis on the Advantages of Free Trade as Opposed to Protectionism.

<sup>12</sup> Prevention of Dumping Act, 1988.

<sup>13</sup> Information obtained from discussions with various officials at the Basel Convention Regional Centre in Pretoria, April 2002, See Basel Convention Regional Centre, Regional Training Centre for Implementation of the Basel Convention, Pretoria, Volume 1 Number 1, Newsletter May 2001 and Volume 1 Number 2, Newsletter December 2001; See also, Chapter 3.4.1 of the thesis. The italicised "*jointly implemented*" here signifies a particular emphasis on the need for collaboration.

<sup>14</sup> Sections (b) and (g) of WTO Article XX Exceptions.

<sup>15</sup> On multilateralism, see Principles 22 and 24 of the Stockholm Declaration (1972); Principles 7, 12, 14 and 27 of the Rio Declaration (1992), and Principles 31, 32 and 33 of The Johannesburg Declaration on Sustainable Development (2002), which advocates multilateral co-operation as a means to attaining environmental objectives; See also, discussions on multilateralism in Chapter 3.1 of thesis.

<sup>16</sup> As indicated by GAEC and the UNDP-Country Office in Accra, Ghana, December 2002.

<sup>17</sup> Chapter 3.2.10 of this thesis.

<sup>18</sup> E-mail Message of 18<sup>th</sup> May 2002 from Mr. Michael D. Parker, President and Chief Executive Officer, Dow Chemicals Company, to Miss Yvonne Asamani, Subject: Bhopal Dow: Take Responsibility for Bhopal (Date: Saturday, 18 May 2002; Time 06:44:39 -0400); See also, <http://www.greenpeace.org>

<sup>19</sup> Marbury, HJ "Hazardous Waste Exportation: The Global Manifestation of Environmental Racism" (March 1995) *Vanderbilt JTL*, Vol. 28 No. 2, at 258-259; See also Chapter 5.3.3 of thesis for full details and discussion of this case.

<sup>20</sup> See analysis on this question and same points being made in the case of Ghana.

<sup>21</sup> See for example, Chapter 5.4.4 for further details of this particular case of importation.

<sup>22</sup> See Findings in Question 4 (b), Annex 3, on recommendations for specialisation and the need to avoid turning South Africa into a waste dump, during the course of intra-African toxic waste trade; See also relevant point in Chapter 5.4.16 of thesis.

<sup>23</sup> See Mander, J and Goldsmith, E *The Case Against the Global Economy and for a Turn Toward the Local* San Francisco, Calif.: Sierra Club Books (1996), at 79-80; They generally provide further examples from French West Africa at 82-84.

<sup>24</sup> Mander and Goldsmith (1996), *Ibid*, Chapter 7, especially at 90-91.

<sup>25</sup> See Chapter 2.6.1(a) on specialisation.

<sup>26</sup> See Analysis of Findings for Ghana, Question 5 (c).

<sup>27</sup> See question 7 for further discussions on such membership and municipal laws, with further points on how they link to NEPAD.

<sup>28</sup> Basel Convention Regional Centre, Regional Training Centre for Implementation of the Basel Convention, Pretoria, South Africa, Volume 1 Number 1, Newsletter May 2001 and Volume 1 Number 2, Newsletter December 2001; See also, Chapter 3.4.1 (f) of thesis, under the Evaluation of the Basel Convention.

<sup>29</sup> Basel COP 3, 1995.

<sup>30</sup> See Article 11 of each Convention.

<sup>31</sup> Section 24 of South Africa's 1996 constitution. See also, Section 24 of the OAU Charter. See also, this principle in preambular clause of model law in Chapter 6 (B) of thesis.

<sup>32</sup> Mexico's membership to the Commission on Environmental Co-operation of North America, created on 26<sup>th</sup> July 1994, also enables this country to adhere to high environmental standards including matters of toxic waste trade regulation.

<sup>33</sup> See relevant point made in Chapter 3.4.2(f), for further details of this incident.

<sup>34</sup> See Basel Convention Regional Centre, *Volume 2: Country Profiles and Networks*, September 2001, at 4.

<sup>35</sup> *Ibid*, at 1.

<sup>36</sup> *Ibid*, at 5.

<sup>37</sup> *Ibid*.

<sup>38</sup> *Ibid*, at 6.

<sup>39</sup> See Marbury, HJ "Hazardous Waste Exportation: The Global Manifestation of Environmental Racism" (March 1995) *Vanderbilt JTL*, Vol. 28 No. 2, at 251-294, elaborated upon in Chapter 5.3.1 (b) of this thesis.

<sup>40</sup> UNEP, Dakar Declaration on the Phase-Out of Leaded Gasoline, March 2002 and preceding UNEP Governing Council Decision 21/6, adopted on 9 February 2001; UNEP, Report on the Phase-Out of Leaded Petrol, Document UNEP/GC.22/INF/23 (In conformity with WSSD's Leading Type II Project: the Partnership for Clean Fuels and Vehicles, Johannesburg, South Africa, 2002) submitted to UNEP's 22<sup>nd</sup> Governing Council in Nairobi, Kenya, 3 to 7 February, 2003.

<sup>41</sup> See Chapter 5.2.4 (a) (i) and (ii) of thesis.

<sup>42</sup> See relevant discussions in Chapters 5.4 (A) and (B)

<sup>43</sup> Emphasis mine. See also, Chapter 5.6.4 on this recommendation.

<sup>44</sup> See recommendation of Glazewski J *Environmental Law in South Africa* Butterworths (2000), at 58 and 677, discussed in Chapter 3.4.3 (d).

<sup>45</sup> See Chapters 3.4.1(f)(a)(ii), 5.3.3 and 5.3.5, under points on activities of the BCRC, and how this helps improves ivoirian regulation of toxic waste trade. For further details on these projects, see for instance, Centre Régional de la Convention de Bâle pour l'Afrique Francophone, Dakar, Senegal, *Rapport de la Réunion, Deuxième Réunion du Comité Directeur du Centre Régional de la Convention de Bâle pour l'Afrique Francophone*, 05 Février 2002, Dakar, Senegal.

<sup>46</sup> See Chapter 5.3.1(b)(ii), under discussions pertaining to Côte d'Ivoire.

<sup>47</sup> See for example, Chapters 5.5.5 of thesis.

<sup>48</sup> See analysis of answers, especially of South African DEAT, and Basel Convention Regional Centre, under Question 1. See analysis in Question 4(a).

<sup>49</sup> See for example, Centre Régional de la Convention de Bâle pour l'Afrique Francophone, Dakar, Senegal, (2002), *Supra* 45, at 5; Centre Régional de la Convention de Bâle pour l'Afrique Francophone, Dakar, Senegal, *Rapport Final, Atelier Régional de Sensibilisation sur les mouvements transfrontaliers de déchets dangereux et de leur élimination en Afrique de l'Ouest*, 06-08 Février 2002, Dakar, Senegal.

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<sup>50</sup> See for example, Articles 35.1 on precautionary measures, 26 which touches on the preventive principle, 35.5 on the polluter pays principle and 33 on the human right to a decent environment. These are all discussed in Chapter 5.6.5 of the thesis.

<sup>51</sup> See response to Question 3(c), under Côte d'Ivoire.

<sup>52</sup> See for instance, response of FAO to Question 3(c), under Ghana.

<sup>53</sup> Article 2; discussed in Chapter 5.6.4.

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#### **Annex 4: List of Hazardous Substances Controlled in South Africa, Ghana and Côte d'Ivoire**

For easy reference, the following list is to be annexed to the model law of each of the three case study countries.

##### **(a) South Africa**

##### **(a) Banned Substances<sup>1</sup>**

##### **A1 Metal and metal-bearing wastes**

A1010 Metal wastes and waste consisting of alloys of any of the following:

- Antimony
- Arsenic
- Beryllium
- Cadmium
- Lead
- Mercury
- Selenium
- Tellurium
- Thallium

but excluding such wastes specifically listed on list B.

A1020 Waste having as constituents or contaminants, excluding metal waste in massive form, any of the following:

- Antimony; antimony compounds
- Beryllium; beryllium compounds
- Cadmium; cadmium compounds
- Lead; lead compounds



- Selenium; selenium compounds
- Tellurium; tellurium compounds

A1030 Wastes having as constituents or contaminants any of the following:

- Arsenic; arsenic compounds
- Mercury; mercury compounds.

A1040 Wastes having as constituents any of the following:

- Metal carbonyls
- Hexavalent chromium compounds

A1050 Galvanic sludges

A1060 Waste liquors from the pickling of metals

A1070 Leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc.

A1080 Waste zinc residues not included on list B, containing lead and cadmium in concentrations sufficient to exhibit Annex III characteristics

A1090 Ashes from the incineration of insulated copper wire

A1100 Dusts and residues from gas cleaning systems of copper smelters

A1110 Spent electrolytic solutions from copper electrorefining and electrowinning operations

A1120 Waste sludges, excluding anode slimes, from electrolyte purification systems in copper electrorefining and electrowinning operations

A1130 Spent etching solutions containing dissolved copper

A1140 Waste cupric chloride and copper cyanide catalysts

A1150 Precious metal ash from incineration of printed circuit boards not included on list B

A1160 Waste lead-acid batteries, whole or crushed

A1170 Unsorted waste batteries excluding mixtures of only list B batteries. Waste batteries not specified on list B containing Annex I constituents to an extent to render them hazardous.

A1180 Waste electrical and electronic assemblies or scrap containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in Annex III (note the related entry on list B B1110)

A2 Wastes containing principally inorganic constituents, which may contain metals and organic materials

A2010 Glass waste from cathode-ray tubes and other activated glasses

A2020 Waste inorganic fluorine compounds in the form of liquids or sludges but excluding such wastes specified on list B

A2030 Waste catalysts but excluding such wastes specified on list B

A2040 Waste gypsum arising from chemical industry processes, when containing Annex I constituents to the extent that it exhibits an Annex III hazardous characteristic (note the related entry on list B B2080)

A2050 Waste asbestos (dusts and fibres)

A2060 Coal-fired power plant fly-ash containing Annex I substances in concentrations sufficient to exhibit Annex III characteristics (note the related entry on list B B2050)

A3 Wastes containing principally organic constituents, which may contain metals and inorganic materials

A3010 Waste from the production or processing of petroleum coke and bitumen

A3020 Waste mineral oils unfit for their originally intended use

A3030 Wastes that contain, consist of or are contaminated with leaded anti-knock compound sludges

A3040 Waste thermal (heat transfer) fluids

A3050 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives excluding such wastes specified on list B (note the related entry on list B B4020)

A3060 Waste nitrocellulose

A3070 Waste phenols, phenol compounds including chlorophenol in the form of liquids or sludges

A3080 Waste ethers not including those specified on list B

A3090 Waste leather dust, ash, sludges and flours when containing hexavalent chromium compounds or biocides (note the related entry on list B B3100)

A3100 Waste paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles containing hexavalent chromium compounds or biocides (note the related entry on list B B3090)

A3110 Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list B B3110)

A3120 Fluff - light fraction from shredding

A3130 Waste organic phosphorous compounds

A3140 Waste non-halogenated organic solvents but excluding such wastes specified on list B

A3150 Waste halogenated organic solvents

A3160 Waste halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations

A3170 Wastes arising from the production of aliphatic halogenated hydrocarbons (such as chloromethane, dichloro-ethane, vinyl chloride, vinylidene chloride, allyl chloride and epichlorohydrin)

A3180 Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more

A3190 Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolytic treatment of organic materials

A4 Wastes which may contain either inorganic or organic constituents

A4010 Wastes from the production, preparation and use of pharmaceutical products but excluding such wastes specified on list B

A4020 Clinical and related wastes; that is wastes arising from medical, nursing, dental, veterinary, or similar practices, and wastes generated in hospitals or other facilities during the investigation or treatment of patients, or research projects

A4030 Wastes from the production, formulation and use of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification, outdated, or unfit for their originally intended use

A4040 Wastes from the manufacture, formulation and use of wood-preserving chemicals

A4050 Wastes that contain, consist of or are contaminated with any of the following:

- Inorganic cyanides, excepting precious-metal-bearing residues in solid form containing traces of inorganic cyanides

- Organic cyanides

A4060 Waste oils/water, hydrocarbons/water mixtures, emulsions

A4070 Wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding any such waste specified on list B (note the related entry on list B B4010)

A4080 Wastes of an explosive nature (but excluding such wastes specified on list B)

A4090 Waste acidic or basic solutions, other than those specified in the corresponding entry on list B (note the related entry on list B B2120)

A4100 Wastes from industrial pollution control devices for cleaning of industrial off-gases but excluding such wastes specified on list B

A4110 Wastes that contain, consist of or are contaminated with any of the following:

- Any congener of polychlorinated dibenzo-furan
- Any congener of polychlorinated dibenzo-dioxin

A4120 Wastes that contain, consist of or are contaminated with peroxides

A4130 Waste packages and containers containing Annex I substances in concentrations sufficient to exhibit Annex III hazard characteristics

A4140 Waste consisting of or containing off specification or outdated chemicals corresponding to Annex I categories and exhibiting Annex III hazard characteristics

A4150 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on human health and/or the environment are not known

A4160 Spent activated carbon not included on list B (note the related entry on list B B2060).

**(b) Permitted but Regulated Waste**<sup>2</sup>

**B1 Metal and metal-bearing wastes**

B1010 Metal and metal-alloy wastes in metallic, non-dispersible form:

- Precious metals (gold, silver, the platinum group, but not mercury)
- Iron and steel scrap
- Copper scrap
- Nickel scrap
- Aluminium scrap
- Zinc scrap
- Tin scrap
- Tungsten scrap
- Molybdenum scrap
- Tantalum scrap
- Magnesium scrap
- Cobalt scrap
- Bismuth scrap
- Titanium scrap
- Zirconium scrap

- Manganese scrap
- Germanium scrap
- Vanadium scrap
- Scrap of hafnium, indium, niobium, rhenium and gallium
- Thorium scrap
- Rare earths scrap

B1020 Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc), of:

- Antimony scrap
- Beryllium scrap
- Cadmium scrap
- Lead scrap (but excluding lead-acid batteries)
- Selenium scrap
- Tellurium scrap

B1030 Refractory metals containing residues

B1040 Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous

B1050 Mixed non-ferrous metal, heavy fraction scrap, not containing Annex I materials in concentrations sufficient to exhibit Annex III characteristics

B1060 Waste selenium and tellurium in metallic elemental form including powder

B1070 Waste of copper and copper alloys in dispersible form, unless they contain Annex I constituents to an extent that they exhibit Annex III characteristics

B1080 Zinc ash and residues including zinc alloys residues in dispersible form unless containing Annex I constituents in concentration such as to exhibit Annex III characteristics or exhibiting hazard characteristic H4.3

B1090 Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury

B1100 Metal-bearing wastes arising from melting, smelting and refining of metals:

- Hard zinc spelter
- Zinc-containing drosses:
  - Galvanizing slab zinc top dross (>90% Zn)
  - Galvanizing slab zinc bottom dross (>92% Zn)
  - Zinc die casting dross (>85% Zn)
  - Hot dip galvanizers slab zinc dross (batch)(>92% Zn)
  - Zinc skimmings
- Aluminium skimmings (or skims) excluding salt slag
- Slags from copper processing for further processing or refining not containing arsenic, lead or cadmium to an extent that they exhibit Annex III hazardous characteristics
- Wastes of refractory linings, including crucibles, originating from copper smelting
- Slags from precious metals processing for further refining
- Tantalum-bearing tin slags with less than 0.5% tin



#### B1110 Electrical and electronic assemblies:

- Electronic assemblies consisting only of metals or alloys
- Waste electrical and electronic assemblies or scrap (including printed circuit boards) not containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or not contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex III (note the related entry on list A A1180)
- Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse, and not for recycling or final disposal
- B1120 Spent catalysts excluding liquids used as catalysts, containing any of:
  - Transition metals, excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) on list A:
    - Scandium
    - Vanadium
    - Manganese
    - Cobalt
    - Copper
    - Yttrium
    - Niobium
    - Hafnium
    - Tungsten

#### Lanthanides (rare earth metals):

- Lanthanum
- Praseodymium

- Samarium
- Gadolinium
- Dysprosium
- Erbium
- Ytterbium

B1130 Cleaned spent precious-metal-bearing catalysts

B1140 Precious-metal-bearing residues in solid form which contain traces of inorganic cyanides

B1150 Precious metals and alloy wastes (gold, silver, the platinum group, but not mercury) in a dispersible, non-liquid form with appropriate packaging and labelling

B1160 Precious-metal ash from the incineration of printed circuit boards (note the related entry on list A A1150)

B1170 Precious-metal ash from the incineration of photographic film

B1180 Waste photographic film containing silver halides and metallic silver

B1190 Waste photographic paper containing silver halides and metallic silver

B1200 Granulated slag arising from the manufacture of iron and steel

B1210 Slag arising from the manufacture of iron and steel including slags as a source of  $\text{TiO}_2$  and vanadium

B1220 Slag from zinc production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301) mainly for construction

B1230 Mill scaling arising from the manufacture of iron and steel

B1240 Copper oxide mill-scale

B2 Wastes containing principally inorganic constituents, which may contain metals and organic materials

B2010 Wastes from mining operations in non-dispersible form:

- Natural graphite waste
- Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise
- Mica waste
- Leucite, nepheline and nepheline syenite waste
- Feldspar waste
- Fluorspar waste
- Silica wastes in solid form excluding those used in foundry operations

B2020 Glass waste in non-dispersible form:

- Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses

B2030 Ceramic wastes in non-dispersible form:

- Cermet wastes and scrap (metal ceramic composites)
- Ceramic based fibres not elsewhere specified or included

B2040 Other wastes containing principally inorganic constituents:

- Partially refined calcium sulphate produced from flue-gas desulphurization (FGD)
- Waste gypsum wallboard or plasterboard arising from the demolition of buildings

- Slag from copper production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301 and DIN 8201) mainly for construction and abrasive applications

- Sulphur in solid form

- Limestone from the production of calcium cyanamide (having a pH less than 9)

- Sodium, potassium, calcium chlorides

- Carborundum (silicon carbide)

- Broken concrete

- Lithium-tantalum and lithium-niobium containing glass scraps

B2050 Coal-fired power plant fly-ash, not included on list A (note the related entry on list A A2060)

B2060 Spent activated carbon resulting from the treatment of potable water and processes of the food industry and vitamin production (note the related entry on list A A4160)

B2070 Calcium fluoride sludge

B2080 Waste gypsum arising from chemical industry processes not included on list A (note the related entry on list A A2040)

B2090 Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor alkali electrolyses and from metallurgical industry)

B2100 Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning, flocculation or filtration processes

B2110 Bauxite residue ("red mud") (pH moderated to less than 11.5)

B2120 Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous (note the related entry on list A A4090)

B3 Wastes containing principally organic constituents, which may contain metals and inorganic materials

B3010 Solid plastic waste:

The following plastic or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a specification:

• Scrap plastic of non-halogenated polymers and co-polymers, including but not limited to the following:

- ethylene
- styrene
- polypropylene
- polyethylene terephthalate
- acrylonitrile
- butadiene
- polyacetals
- polyamides
- polybutylene terephthalate
- polycarbonates
- polyethers
- polyphenylene sulphides

- acrylic polymers
- alkanes C10-C13 (plasticiser)
- polyurethane (not containing CFCs)
- polysiloxanes
- polymethyl methacrylate
- polyvinyl alcohol
- polyvinyl butyral
- polyvinyl acetate
- Cured waste resins or condensation products including the following:
  - urea formaldehyde resins
  - phenol formaldehyde resins
  - melamine formaldehyde resins
  - epoxy resins
  - alkyd resins
  - polyamides
- The following fluorinated polymer wastes
  - perfluoroethylene/propylene (FEP)
  - perfluoroalkoxy alkane (PFA)
  - perfluoroalkoxy alkane (MFA)

- polyvinylfluoride (PVF)
- polyvinylidene fluoride (PVDF)

#### B3020 Paper, paperboard and paper product wastes

The following materials, provided they are not mixed with hazardous wastes:

Waste and scrap of paper or paperboard of:

- unbleached paper or paperboard or of corrugated paper or paperboard
- other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass
- paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)
- other, including but not limited to 1) laminated paperboard 2) unsorted scrap.

#### B3030 Textile wastes

The following materials, provided they are not mixed with other wastes and are prepared to a specification:

- Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock)
  - not carded or combed
  - other
- Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock
  - noils of wool or of fine animal hair
  - other waste of wool or of fine animal hair

- waste of coarse animal hair
- Cotton waste (including yarn waste and garnetted stock)
- yarn waste (including thread waste)
- garnetted stock
- other
- Flax tow and waste
- Tow and waste (including yarn waste and garnetted stock) of true hemp (Cannabis sativa L.)
- Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie)
- Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus Agave
- Tow, noils and waste (including yarn waste and garnetted stock) of coconut
- Tow, noils and waste (including yarn waste and garnetted stock) of abaca (Manila hemp or Musa textilis Nee)
- Tow, noils and waste (including yarn waste and garnetted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included
- Waste (including noils, yarn waste and garnetted stock) of man-made fibres
- of synthetic fibres
- of artificial fibres
- Worn clothing and other worn textile articles



- Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials

- sorted

- other

#### B3040 Rubber wastes

The following materials, provided they are not mixed with other wastes:

- Waste and scrap of hard rubber (e.g., ebonite)
- Other rubber wastes (excluding such wastes specified elsewhere)

#### B3050 Untreated cork and wood waste:

- Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms
- Cork waste: crushed, granulated or ground cork

#### B3060 Wastes arising from agro-food industries provided it is not infectious:

- Wine lees
- Dried and sterilized vegetable waste, residues and byproducts, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included
- Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes
- Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised
- Fish waste

- Cocoa shells, husks, skins and other cocoa waste
- Other wastes from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption

B3070 The following wastes:

- Waste of human hair
- Waste straw
- Deactivated fungus mycelium from penicillin production to be used as animal feed

B3080 Waste parings and scrap of rubber

B3090 Paring and other wastes of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavalent chromium compounds and biocides (note the related entry on list A A3100)

B3100 Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides (note the related entry on list A A3090)

B3110 Fellmongery wastes not containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list A A3110)

B3120 Wastes consisting of food dyes

B3130 Waste polymer ethers and waste non-hazardous monomer ethers incapable of forming peroxides

B3140 Waste pneumatic tyres, excluding those destined for Annex IVA operations

B4 Wastes which may contain either inorganic or organic constituents

B4010 Wastes consisting mainly of water-based/latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (note the related entry on list A A4070)

B4020 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Annex III characteristics, e.g., water-based, or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A A3050)

B4030 Used single-use cameras, with batteries not included on list A.

**(b) Ghana and (c) Côte d'Ivoire<sup>3</sup>**

**(a) Categories of Banned Waste**

- (i) Dioxins;
- (ii) Furans;
- (iii) HexaChloroBenzene;
- (iv) Mirex;
- (v) Heptachlor;
- (vi) DDT;
- (vii) Dieldrin;
- (viii) Chlordane;
- (ix) Toxaphene;
- (x) Aldrin;
- (xi) Endrin;
- (xii) Carcinogenic Asbestos;
- (xiii) PolyChlorinated Biphenyls (PCBs);
- (xiv) PolyChlorinated Terphenyls (PCTs);
- (xv) PolyBrominated Biphenyls (PBBs).

**(b) Categories of Controlled Waste<sup>4</sup>**

**(i) Waste Streams**

Y1 Clinical wastes from medical care in hospitals, medical centres and clinics;

Y2 Wastes from the production and preparation of pharmaceutical products;

- Y3 Wastes from pharmaceuticals, drugs and medicines;
- Y4 Wastes from the production, formulation and use of biocides and phytopharmaceuticals;
- Y5 Wastes from the production, manufacture, formulation and use of organic solvents;
- Y6 Wastes from the production, formulation and use of organic solvents;
- Y7 Wastes from heat treatment and tempering operations containing cyanides;
- Y8 Waste mineral oils unfit for their originally intended use;
- Y9 Waste oils/waste, hydrocarbons/water mixtures, emulsions;
- Y11 Waste tarry residues arising from refining, distillation and any prolytic treatment ;
- Y12 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish ;
- Y13 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives ;
- Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known ;
- Y15 Wastes of an explosive nature not subject to other legislation ;
- Y16 Wastes from production, formulation and use of photographic chemicals and processing materials ;
- Y17 Wastes resulting from surface treatment of metals and plastics ;
- Y18 Residues arising from industrial disposal operation;
- Y46 Residues collected from households, including sewage and sewage sludges;
- Y47 Residues arising from the incineration of household waste.

(ii) Wastes having as constituents:

- Y19 Metal carbonyls;
- Y20 Beryllium; beryllium compounds;
- Y21 Hexavalent chromium compounds;
- Y22 Copper Compounds;
- Y23 Zinc Compounds;
- Y24 Arsenic; arsenic compounds;
- Y25 Selenium; selenium compounds;

Y26 Cadmium; cadmium compounds;  
Y27 Antimony; antimony compounds;  
Y28 Tellurium; tellurium compounds;  
Y29 Mercury; mercury compounds;  
Y30 Thallium; thallium compounds;  
Y31 Lead; lead compounds;  
Y32 Inorganic fluorine compounds excluding calcium fluoride;  
Y33 Inorganic cyanides;  
Y34 Acidic solutions or acids in solid form;  
Y35 Basic solutions or bases in solid form;  
Y36 Asbestos (dust and fibres);  
Y37 Organic phosphorous compounds;  
Y38 Organic cyanides;  
Y39 Phenols; phenol compounds including chlorophenols;  
Y40 Ethers;  
Y41 Halogenated organic solvents;  
Y42 Organic solvents excluding halogenated solvents;  
Y43 Any congener of polychlorinated dibenzo-furan;  
Y44 Any congener of polychlorinated dibenzo-p-dioxin;  
Y45 Organohalogen compounds other than substances referred to in this Annex, for example, Y38, Y49, Y41, Y42, Y43;  
Y46 Wastes having as constituents, ammonium.

**(c) Categories of Wastes Requiring Special Consideration**

Y46 Wastes collected from households;  
Y47 Residues arising from the incineration of household wastes.

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<sup>1</sup> These are termed as Annex VIII LIST A substances under the Basel Convention. Wastes contained in this Annex are characterized as hazardous under Article 1, paragraph 1 (a), of this Convention, and their designation on this Annex does not preclude the use of Annex III to demonstrate that a waste is not hazardous. It is important to note that this list is in conformity with the list of banned substances, under the Basel Convention. Furthermore, the lists here and those regulated in category (b) under South Africa, are the same as those under Basel which adheres to the hazardous classification system included in the UN

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Recommendations on the Transport of Dangerous Goods, ST/SG/AC.10/1/Rev.5, United Nations New York, 1988.

<sup>2</sup> These are termed as Annex IX List B under the Basel Convention. Wastes contained in the Annex will not be wastes covered by Article 1, paragraph 1 (a), of this Convention unless they contain Annex I material to an extent causing them to exhibit an Annex III characteristic.

<sup>3</sup> This list of banned and controlled waste in the cases of these two countries is in conformity with categories of waste which are hazardous waste under Annex I, Bamako Convention. For the List of Hazardous Characteristics, see Annex II, Bamako Convention, which corresponds to the hazardous classification system included in the UN Recommendations on the Transport of Dangerous Goods, ST/SG/AC.10/1/Rev.5, United Nations New York, 1988.

<sup>4</sup> It is very important to note that according to the South African DEAT, the list of all the substances in this category are also controlled by South Africa. This would facilitate trading in this group of substances within this category amongst the three case study countries, and others in the continent, as far as these substances are concerned.

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